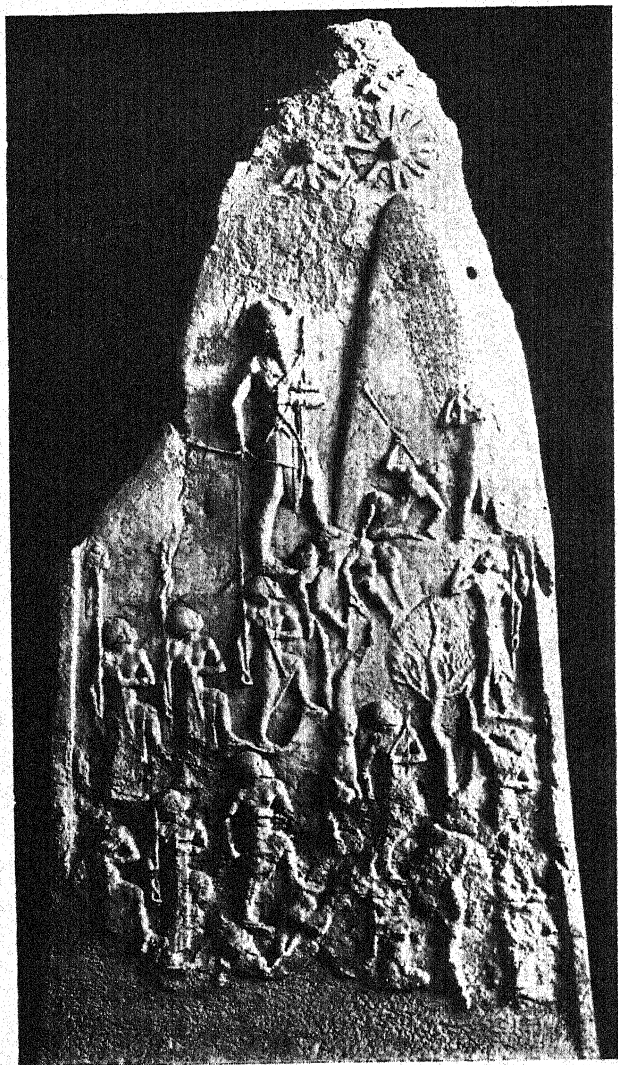


THE ORIGINS OF ARCHITECTURE

EARLY ARCHITECTURE
IN WESTERN ASIA





Mansel]

[*Photo*

THE STELE OF NARAMSIN

Found in 1898 by De Morgan at Susa, whither it had been carried as a trophy by the Elamites. Now in the Louvre

EARLY ARCHITECTURE IN WESTERN ASIA

CHALDAEAN, HITTITE
ASSYRIAN, PERSIAN

A HISTORICAL OUTLINE

BY

EDWARD BELL

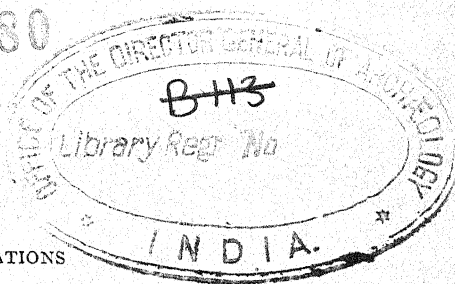
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AUTHOR OF "THE ARCHITECTURE OF ANCIENT EGYPT,"
"HELLENIC ARCHITECTURE,"
ETC.

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"Each genuine phase of architecture is indissolubly connected with the architecture before and after it; and it is only from this standpoint that it is possible to arrive at its true significance as a link in a chain of long development."—SIR R. BLOMFIELD, *The Mistress Art*, p. 225.

"Of all the currents that have lapped the feet of architecture . . . the philosophy of evolution must be held to have been the most powerful in its impulse, the most penetrating in its reach."
—GEOFFREY SCOTT, *The Architecture of Humanism*, p. 165.

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PREFACE

I N a series of volumes which deals with the origins of architecture—that is to say, with the early structures from which may be traced the gradual evolution of our modern architecture—it has been necessary to make only casual reference to the art of Asia. But the culture of Greece, which has played so large a part in the formation of our own civilization, certainly owed something to oriental influences, and in what way they affected one particular branch of art I have attempted to show in a small volume on Hellenic Architecture. But I venture to think that this has not exhausted the interest of the subject. There is an eastern as well as a western tradition, and the fact that the two lines of evolution have had occasional and not unimportant points of contact has suggested a more detailed study of those Asiatic empires which kept up a continually recurring struggle with Egypt, and at last threatened the political submergence of Europe. From this fate, Europe was saved for many centuries by the steadfastness and genius of Greece, with the further consequence that Hellenic culture became more widely diffused in parts of Asia. It was in fact through Ionia that the main line of architectural tradition was maintained and handed on by Rome to later ages, but with this part of the subject

the present volume does not pretend to deal. My object is limited to supplementing the earlier pages of architectural history by collating some of the new material recently brought to light, and bringing it into relation with what is already common knowledge. The amount of such new material accumulated during the present century is surprising. Dr. Koldewey's long and laborious work at Babylon, the late Dr. King's historical researches into Mesopotamian history, and Professor Garstang's investigations in Asia Minor are already easily available for English readers, but the work of German archaeologists at Boghaz-Keui, Sinjerli and Assur, of Americans at Nippur, and of our own countrymen at Karchemish and in Southern Mesopotamia are still to a large extent accessible only in special reports or the publications of museums and societies. Much of this work was interrupted by four years of war; but on the other hand, the military occupation of Mesopotamia afforded an opportunity of exploration of which the British Museum, represented chiefly by Dr. H. R. Hall and Mr. R. Campbell Thompson, took advantage, and which resulted in discoveries and detailed observation of much importance in the early history of those regions.

In attempting to summarize and interpret the information thus acquired I may have drawn conclusions which further investigation will modify or fail to substantiate, but in any case I hope that an outline such as this may have some interest for students of architectural history,

or at least indicate the lines on which further information may be obtained.

So far as historical matter is concerned it will be evident that I am chiefly indebted to Dr. H. R. Hall's well-known work on "The Near East," and also, for the earlier periods, to Prof. E. Meyer's "*Geschichte des Altertums*." "The Land of the Hittites," by Prof. Garstang, has been of great use not only for its general survey of the land, and of what is known of its early history, but also for the detailed description and illustrations of so many of its ancient monuments. I have also to thank him for a hitherto unpublished note. Older works by Sir H. Layard, W. K. Loftus, George Smith, and contributions to the journal of the Royal Asiatic Society have necessarily been much used, and for the last section of the book I have relied mainly on Lord Curzon's detailed description of the Achaemenean monuments at Persepolis and the neighbourhood.

In regard to the illustrations I must express my sincere thanks to the Director of the British Museum for permission to reproduce a considerable number from various publications of the Trustees; also to the Council of the Society of Antiquaries, London, and to Dr. H. R. Hall and Professor Langdon, Fellows of the Society, for allowing me to copy illustrations from contributions to the *Proceedings and Archaeologia*; to Mr. G. B. Gordon, Director of the University Museum, Philadelphia, for kindly presenting me with photographs illustrating the

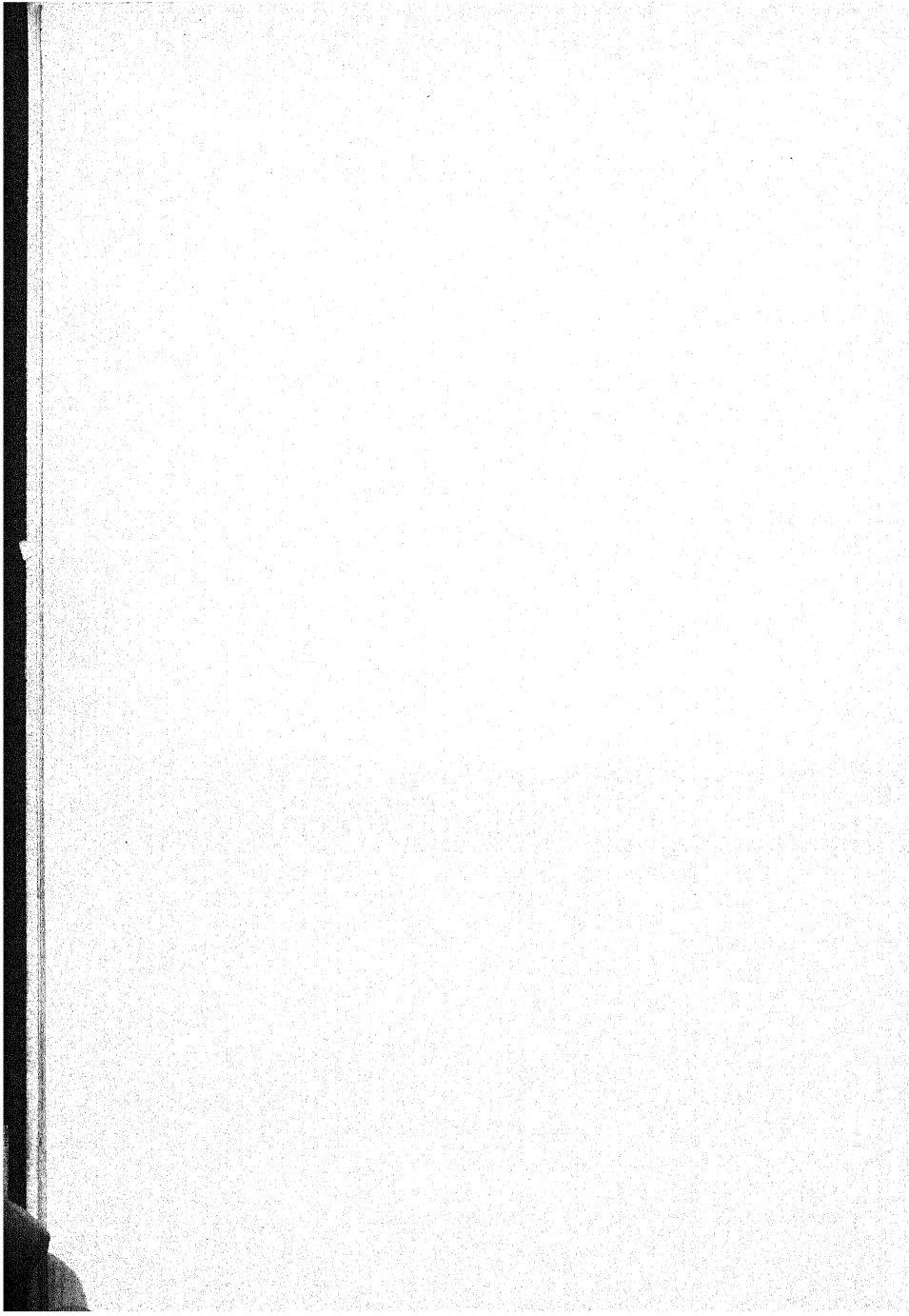
University's Excavations at Nippur; to Messrs. Heinrichs of Leipzig, publishers for the Deutsche Orient-Gesellschaft, for permission to copy some of the illustrations in their magnificently produced works on the Excavations at Assur by Dr. Andrae, and at Boghaz-Keui by the late Dr. Puchstein; to Professor Dr. von Luschan and his publishers, Messrs. W. de Gruyter & Co. of Berlin, for special facilities in reproducing some of the illustrations in "Ausgrabungen in Sendschirli"; also to Mr. John Murray for kindly lending me some of the original wood-blocks from Layard's "Discoveries in the Ruins of Nineveh and Babylon," and to the following firms for the use of illustrations or plans from the publications appended to their names: Messrs. Longmans ("Persia," by Lord Curzon); Messrs. Macmillan ("Babylon," by Dr. Koldewey, translated by Mrs. Johns); Messrs. Constable ("The Land of the Hittites," by Prof. Garstang); Messrs. Batsford ("A Critical History of Architecture," by Mr. H. H. Statham); The Religious Tract Society ("The Hittites," by Dr. Sayce); and lastly I must thank Mr. J. Williamson for skilful drawings in line from sundry photographs and plans.

E.B.

Dec. 1923.

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ARCHITECTURE IN WESTERN ASIA

CHAPTER I

INTRODUCTORY

I N previous volumes I have attempted to trace the origin of two great styles of architecture—firstly that of ancient Egypt, and secondly that of Greece and its colonies—and more particularly to show how the structural and decorative use of the column, originating in the rock-hewn tombs and temples of Egypt, became an important element in architectural design and contributed to the formation of a continuous tradition which prevailed throughout Europe with the Roman civilization, and can be followed down to modern times.

During the decay of the Western Empire architecture and all the other arts were subjected to new influences, partly from the east, but more definitely from younger races on the north and west, who, though they were, as nations, still in their infancy, brought new inventiveness, untrammelled by convention, to modify the traditional art of Rome. Yet a recognizable tradition was still to be traced, even through the marvellous creations, under religious influences, of the Middle Ages; and when the fall of the Eastern Empire ushered in the Renaissance, classic ideas—never entirely extinguished in Southern Europe—again prevailed; and, notwithstanding the various aberrations of modern eclecticism, are regaining general acknowledgement in the present day.

But though we must still look to ancient Egypt as its ultimate well-head, Egypt is by no means the sole source of the architecture which came to Europe through Greece and imperial Rome. The archaeological exploration of Western Asia, whilst it still leaves untouched a vast field of research for the historical student, has been more than sufficient to indicate two other ancient phases of civilization, the Chaldaean and the Hittite, each with distinct and well-marked characteristics, but not without signs of mutual influence and partial fusion in the later art of Assyria. The evolutionary process thus implied was to some extent contemporaneous with the growth of a distinct pre-Hellenic culture which prevailed throughout the islands and coasts of the Aegean, to which the names Minoan and Mycenaean have been applied; but apart from the fact that both Western Asia and the Eastern Mediterranean were subject at an early date to influences from Egypt there is little evidence of a common growth or a deliberate transference of architectural ideas, until the conquest of Ionia and Egypt by Cyrus and his son led to the development of the peculiar art of Persia.

After the fall of the Achaemenean empire of Persia and the penetration of South-West Asia by Alexander the Great the culture of Greece was more widely diffused, and its art at the same time became tinged with oriental ideas. Architecture assumed a more grandiose form in which elements derived from the earlier empires of Western Asia may be detected. The study of this Hellenistic art and the process by which, through the Roman empire, it became contributory to the evolution of European architecture, forms an important chapter in the general history of the art, and furnishes the reason for including the early forms of Eastern architecture amongst the origins of that which became traditional in the West.

The close relation of its architecture to the history of any nation is a matter of common observation. The forms of temples, tombs, defences, and dwellings all speak of the character of their constructors, and the conditions under which they have lived. In practical archaeology its significance is only rivalled by that of the minor art of ceramics, which in recent years has proved such a fruitful means of investigation. In some sense this minor art has an advantage over the other, inasmuch as its fictile remains are practically permanent, whereas buildings not only disappear through effects of time and climate, but are also purposely destroyed and superseded by contemporary or succeeding generations of men. The two arts are supplementary in serving the purposes of the historian, and their value is infinitely increased when their testimony is corroborated, as it is in Egypt and Mesopotamia, by legible documentary evidence.

Our present knowledge of the history of Chaldaea¹ and Assyria has been acquired by the same means as that of Egypt, but is a more recent acquisition. Hardly seventy years ago a fragmentary story, vaguely known through Biblical records and the tales of Greek travellers and historians was suddenly illuminated by the excavations of Sir H. Layard and others at Kouyunjik and Nimrūd on the Tigris; and the simultaneous solution of the cuneiform script has given life to the ancient traditions and meaning to the extraordinary wealth of architectural decoration which was then brought to light. Other researches in Mesopotamia which have been actively prosecuted in recent years have thrown

¹ Though Chaldaea is, strictly speaking, the name of a province at the head of the Persian Gulf, the words Chaldaea and Chaldaean are commonly applied to the whole of Mesopotamia. In the following pages they are used generally to signify Lower Mesopotamia and Babylonia as distinguished from Assyria.

still more light on its complicated history and made it possible to trace the development of its art, especially of its architecture, with some degree of chronological accuracy.

Similar considerations apply to Syria and the greater part of Asia Minor, where still more recently the existence of a great Hittite power has been made manifest by the discovery of extensive architectural remains and some legible documents, though the Hittite inscriptions still remain undeciphered. The political relations of these various powers with each other, and the reciprocal influences of their peculiar cultures help to illustrate and explain their architectural work, and this fact will excuse and, it is hoped, justify to the reader the inclusion of the short historical summaries which are given in the following chapters.

CHAPTER II

EARLY HISTORY OF CHALDAEA

WHILST Egypt offers the earliest spectacle of an integral and well-ordered civilization—traceable from a primitive period—in which the arts of sculpture and architecture attained, apparently without external influence, an undisputed pre-eminence, there is not wanting evidence that the human race in Western Asia, especially in Mesopotamia, was simultaneously advancing in culture. It is true that the most primitive indications of human life, at a period when the use of metal was quite unknown, are hardly to be found in that region. The character of the soil shows a formation which, in a geological sense, is too recent to afford evidence of a purely stone age such as is found in the desert-borders of the Nile Valley. But exploration has lately brought to light vestiges of a prehistoric population in the shape of tools of flint and obsidian, utensils of stone and baked clay, together with pottery of an archaic type which, though inferior in craftsmanship to similar objects found in Egypt and the Aegean islands, illustrate the early stages of a parallel advance in culture and art.¹

The two great rivers of Mesopotamia have continuously brought down from their higher courses a vast amount of silt which has encumbered their outfall, and

¹ See accounts of the explorations at Abu Shahrain (Eridu) in 1918-19 by R. Campbell Thompson and H. R. Hall on behalf of the British Museum ("Archaeologia," vol. lxx, and Proc. Soc. Ant., 1919).

considerably altered the coast-line of the Persian Gulf. Its northern extremity at the earliest period of which there is any record may possibly have been more than 100 miles farther north than at present, and the two rivers must have entered it by separate mouths. Now they are united, and flow in one wide channel past Basra, which is itself about seventy miles inland. Three thousand years ago the town of Eridu, twelve miles south-west of "Ur of the Chaldees," on the west side of the Euphrates, must have stood on the shore of a large freshwater lagoon which lay between it and the head of the gulf. It may have served as a sort of port for Sumer, as the southern part of Mesopotamia was called. It is in this region that some of the earliest vestiges of a growing civilization have been found.

The first inhabitants who have left any actual records in the shape of inscribed tablets of baked clay had probably arrived as immigrants from Central Asia, or possibly from northern India.¹ When they first appear in legendary history they must have been long established in Sumer, for the social conditions had got far beyond primitive stages. Towns had arisen which had their own peculiar deities and temples; and independent, or semi-dependent rulers or governors; and public works such as the drainage of swamps and the irrigation of agricultural land had become the special care of those in authority.²

¹ See Hall, "Near East," pp. 173-4.

² The oldest pottery found at Abu Shahrain indicates that there was a pre-Sumerian population (connected racially with the early population of Elam) who had migrated from the east side of the Caspian. Mr. R. C. Thompson places the date of this migration at not later than the fourth millennium ("Archaeologia," vol. lxx, pp. 109, 118): but if E. Meyer's supposition that the beginnings of the settled civilization in the matters of drainage and tillage may be 1,000 years before the earliest records, the immigration may be relegated to the fifth millennium. See Meyer, §§ 364, 379.

It seems probable that these immigrants, who are known in history as Sumerians, were a dominant race who had subjugated an earlier Semitic, and perhaps pre-Semitic, population, and imposed a more advanced culture and methodical government upon migratory clans who, at a more remote period, had wandered eastward from Arabia and occupied with a loose tribal organization not only Sumer, but also the more northerly region of Mesopotamia, known as Agadé or Akkad. It seems certain that the Sumerians brought with them the use of copper, as well as a system of writing in cuneiform characters, and some capacity for plastic art, and thus laid the foundation of all the future culture of Babylonia. Their original writing was pictographic, but it is doubtful if it had any relation to the hieroglyphic of Egypt. It was, in any case, soon superseded by a more cursive script, based on impressed wedge-shaped marks, which was adopted throughout Babylonia, and was afterwards used on occasions by neighbouring nations.

The chief town and religious centre for the whole of Sumer was Nippur, which lay near its northern extremity. Here there was a temple of Ellil and Ninlil, the chief god and goddess of the Sumerians. Other towns, which were sometimes subordinate, and sometimes acquired in turn a dominating position, lay within the delta of the two rivers—such were Lagash (Tello) on an arm of the Tigris; Erech (Warka) near the left bank of the Euphrates; Larsa (Senkereh) and Umma¹ between the last two. Ur (Muquayar) and Eridu (Abu Shahrain) were at the extreme south, not far from the Persian Gulf.

The early history of Mesopotamia seems to be a continuous conflict between the rulers of these towns, or

¹ Umma is now represented by an unexplored mound called Dyocha or Jokha. Meyer, § 390.

with the neighbouring Elamites, a non-Semitic people who inhabited the more hilly country on the east side of the Tigris with their chief city at Šusa. At the time when inscribed records begin Lagash was the seat of an energetic dynasty who appear to have dominated



Large marble statuette of Lugal-dal, King of Adab, c. 3350. ("Archaeologia," vol. lxx.)



Marble statuette from Is-tabalet, 7 $\frac{3}{4}$ in. high, in the Ashmolean Museum, c. 3400 B.C. ("Archaeologia," vol. lxx.)



Limestone figure from Tello, temp. Urnina, c. 3000. (British Museum.)

EARLY SUMERIAN SCULPTURE

neighbouring cities and made a successful incursion into Elam. Statues found at Tello and even more northern sites illustrate the earlier phases of Sumerian culture. A figure of the time of Urnina, one of the earliest kings, shows in a rude but forcible style the characteristic features of a Sumerian dignitary at a period of about 3000 B.C. The most powerful of his imme-

diate successors, who was probably his grandson, Eannatum, extended his sway over neighbouring cities; and one of his victories is commemorated on a carved slab, which shows in high relief and with much rough vigour in design a victory gained over the rival city of Umma. It is known as the stele of the Vultures, from the birds which are depicted carrying off the heads of slain warriors. Some two hundred years later Lagash was overcome by Umma, whose king, Lugalzaggisi, removed his capital to Erech and assumed the title of King of the Land of Sumer. He also extended his conquests westward into Syria, the land of the Semitic tribe commonly known as the Amorites.¹

It seems to be in accordance with the confused and turbulent history of the third millennium B.C. to assume that the groundwork of the population throughout the whole of Mesopotamia was mainly Semitic, though in the south it was strongly infused with the Sumerian invaders. These latter, when recorded history begins, seem to have been constantly striving for the predominance of particular towns, and to maintain their superiority over the older inhabitants. At the same time a fusion of the two races naturally took place and must have tended to counteract racial distinctions. By the same process the superior culture of the Sumerians would more easily spread, as it did, to the Semitic communities of Akkad in the north, where several independent centres of government were established. The population here was increased by migrations of Arab tribes from the

¹ In an inscription of Lugalzaggisi he calls himself "Great patesi of Ellil." The title *patesi* has the meaning of Viceroy or Governor, but is used also by independent rulers who piously regarded themselves as priestly vicegerents of the guardian god of their city. (See Meyer, § 380, and Hall, "N. E.," p. 178.)

Interesting details of the frequent fights between Lagash and Umma are given in K. and H., pp. 177 *sq.*, where the cities are mentioned under the names Shirpula and Gishku.

west and south-west of the river-lands, who, avoiding the Sumerian regions in the south of Mesopotamia, pushed forward on the west side of the Euphrates, which they crossed at some distance to the north of Babylon.¹ Thus before the end of the fourth millennium Semitic kings were ruling at Kish, not far from Babylon (which at that time had not risen to importance), and at Opis, on the Tigris, farther north.² But it was not till about 2650 B.C. that a great king, known to later ages as Sargon of Agadé (Akkad³), arose and welded the small Semitic principalities into a powerful nation. The founder of the dynasty was a certain Sharrugi, who may be indicated by the legendary name of Sargon, but it seems more probable that Shargani-sharri, one of his successors some three generations later, was the actual hero of tradition. His fame is shared by his son Naramsin.

Sargon made all the cities of Sumer subordinate to his rule, which he also extended over the Amorites of Syria, founding, as E. Meyer says, "the first historical empire."⁴ Naramsin still further enlarged his dominions, conquering Magan, which has been identified with the eastern coast of Arabia, and Lulubu in the mountainous country on the east of the Tigris. This latter victory is commemorated on an inscribed stele found at Susa, which shows in high relief the king ascending a mountain followed by his soldiers, whilst one of his enemies falls before him transfixd by a spear and another is supplicat-

¹ See Myre's "Dawn of History," p. 111.

² Kish has been identified with important ruins at Tel Oheimer, 8 miles east of Babylon, though the earliest city was probably 2 miles to the south of the later one. It was the capital city of that district before the rise of the first Babylonian dynasty at the end of the third millennium B.C. The site of Opis is somewhat uncertain, but it is generally located at the confluence of the river Adem and the Tigris about latitude 34° (Meyer, § 369).

³ Agadé is identified with Accad mentioned in Genesis x, 10. See G. Smith, p. 225.

⁴ Meyer, § 402.

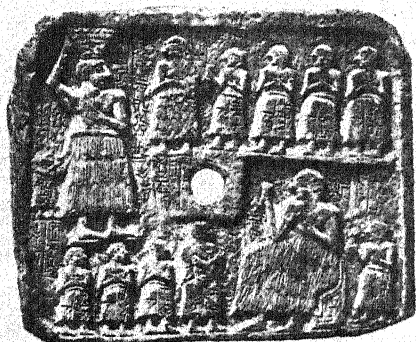
ing for mercy. This monument, though obviously inspired by earlier work of the Sumerians, shows a great advance in free and natural handling, and in all artistic qualities surpasses any similar work of so early a date (see frontispiece).

This empire seems to have lasted altogether about 200 years, but after the death of Naramsin it evidently fell into a state of decadence, and no records remain. Some of the Sumerian cities were able to reassert their independence—a movement in which Lagash again took the lead.

In a long list of the kings, or *patesis*, of Lagash during the next 300 years (c. 2600-2300 B.C.) the name of Gudea stands out most prominently. Portrait statues of him are still extant in which the peculiar features characteristic of his race are as strongly marked as in the figure contemporary with his early predecessor Urnina. The careful exploration of the site of Lagash at Tello, carried out by De Sarzec during the last twenty years of the nineteenth century, yielded results which have thrown a brilliant light on Sumerian culture and religion in the third millennium B.C. Though scarcely anything of Gudea's own work remains beyond the bricks which have been reused in later buildings,¹ a contemporary description of the rebuilding of the temple of the tutelary god Ningirsu has been found on two inscribed cylinders which is invaluable in helping to fill in the outlines which the actual remains of other buildings afford. Amongst the material collected for the work are mentioned trunks of cedar, pine, and other trees. Blocks of stone and supplies of bitumen were brought down the Tigris in barges: copper, gold in the form of powder, and silver came from the mountains; marble and porphyry

¹ According to Meyer (§ 383 *note*) the supposed palace of Gudea was actually a work of Hellenistic times. A plan showing all that is left of the original work is given in Koldewey's "Babylon," p. 294.

were sought in other lands. The manufacture of the bricks, which necessarily formed the core of the building, was inaugurated by the ruler himself. A consecrated mould was filled with clay and left in the temple till the following day, when the mould was broken with religious ceremonies and the brick, after being dried in the sun, was given to the people as a pattern to be



RELIEF OF URNINA CARRYING THE CONSECRATED
BRICK WITH HIS FAMILY, C. 3100 B.C.

(From "Archaeologia," vol. lxx, after De Sarzec,
Découvertes.)

followed in the preparation of the myriads of sun-dried bricks which were required for the platform and the walls of the whole structure. Gudea himself marked out the plan and laid the foundations, and as the building progressed it is described as rising towards heaven "like a mountain, or like a cedar growing in the desert"—in which expression, no doubt, the temple tower or zigurāt is referred to. In the course of its construction he built, apparently within its courts, a fountain for the gods,

and a reservoir or basin fashioned with the great stones. Figures of heroes, and of a lion and a dragon, are mentioned as set up in various parts of the temple—the prototypes, we may assume, of the guardian bulls, lions, and symbolic figures which are familiar features of the later Assyrian temples. Stalls for oxen and sheep, and store-rooms and treasure-chambers filled with precious stones, silver, and lead explain the numerous subdivisions shown on various plans which have been disinterred in other places. Within the precincts, moreover, was a sacred garden, and “on the terrace” a great tank lined with lead, from which, probably, the temple itself was supplied with water. There was a special house for the sacred doves, and birds flew about amongst the flowers and in the shade of the great trees.

Another cylinder describes the removal of the god to his new habitation, and the installation of other deities in separate shrines. Provision was also made for lesser gods who had special local functions assigned to them, such as promoting the fertility of the fields, securing the efficiency of the irrigating machines, protecting the birds and beasts who fed and bred upon the neighbouring plains, and lastly, one who favoured the building of houses and fortifications.¹

Details such as these give an extraordinarily vivid picture of an ancient civilization with which, at the time, probably only that of Egypt or Crete can be compared.

After the death of Gudea, whose reign seems to have been a long one, the prosperity of Lagash swiftly declined.² Whatever may have been the cause it

¹ See K. and H., pp. 203-211.

² Meyer (§ 410) ascribes this sudden eclipse of Sumerian prosperity to an invasion and occupation of the whole land by the people of Gutí in the Zagros mountains, east of the Tigris; but Mr. Hall (“N. E.,” pp. 186, 210) places the few kings of Gutí whose names are known, and the warfare with them, in the time of Sargon and Naramsin; but see “N. E.,” p. 189, note 1.

appears that predominance in Chaldaea soon passed to another Sumerian dynasty, that of Ur, whose king, Ur-Engur, left evidence of his rule in the chief cities of lower Mesopotamia, including Nippur. He was followed by his son, Dungi, a powerful ruler, who in a long reign of fifty-eight years consolidated Ur-Engur's conquests and created a widely extended empire. He or his father was the first to call himself king of Sumer and Akkad, a title which later kings continued to use as a formal assertion of sovereignty over the whole of Babylonia. In the case of Dungi it was amply justified, for he is recorded to have sacked Babylon, which now for the first time appears to have become important, and carried off the treasures of the temple of the chief god, Bel-Marduk. He also made war on the Elamites and reduced Susa, their chief city, to temporary vassalage. It is probable also that he included the Amorites and the eastern parts of Asia Minor in his dominions.¹

The injury to Elam did not remain long unavenged. Dungi's successors proved unequal to the weight of the empire which he left, and about forty years after his death an Elamite conqueror descended on Sumer and carried off the king of Ur as a captive to Susa. It was probably this same Elamite king who sacked Erech and took away the statue of the goddess Nana, a trophy which was recovered sixteen centuries later by Ashurbanipal of Assyria.

After this catastrophe, Sumer as a distinct sovereignty ceased to exist. For the next 200 years the history of Mesopotamia is little else but a record of the names of undistinguished kings of a dynasty which originated at

¹ Meyer, § 414. The dynasty of Ur lasted 117 years and was contemporary with the VIIIth dynasty of Egypt. Meyer makes it terminate c. 2353 B.C., but Mr. Hall places it about 68 years later ("N. E.," p. 210).

Isin,¹ until about 2000 B.C., when Babylon assumes the historic importance which with many fluctuations of fortune it retained till classic times.

¹ The site of Isin, which was in the southern part of Sumer, has not been exactly identified. See Meyer, § 416a.

CHAPTER III

THE RISE OF BABYLON

THAT the site of Babel or Babylon was occupied from a very early period is evident from the fact that flint implements have been found there which cannot be of later date than the fourth millennium B.C., and are probably much older. But the earliest architectural remains seem to belong to the time of Hammurabi.¹ According to legends which must have become current in the first historical dynasty of Babylon (c. 2200 B.C.) the original civilization of Mesopotamia was due to Marduk, who was afterwards identified with Baal or Bel, the chief god of the later Babylonians, and who is probably represented by the Biblical Nimrod.² It was he who resolved the elemental chaos, and separated the land from the waters—which, doubtless, implies the reclamation of much of the country from a condition of diluvial waste. He also is said to have made bricks, and to have built Nippur and Erech and other towns. So far as these legends testify to the prehistoric foundation of the most ancient towns of Sumer, they may be assumed to contain some basis of fact; but the introduction of Marduk must be ascribed to an early invasion of Semites who transferred to their own god the attributes and legends which appertained to a previous Sumerian mythology.

The actual rise of Babylon to pre-eminence was due

¹ R. C. Thompson, "Small Handbook to Mesopotamia."

² Possibly a form of Nin-Merodach.

to the invasion of a chief of the Amorites, who formed the nomadic population of North Arabia as well as of the more settled and fertile Lebanon. He, by name Sumu-abu, made a successful attack on Babylon, and settled himself there, though, for a time, Kish and other neighbouring towns seem to have retained their independence. He was followed by four or five rulers who, during the next hundred years, confirmed their authority and enlarged their dominions until they obtained the overlordship of Nippur and Sippar, and the chief cities of central Mesopotamia.

There is no doubt that the Sumerian culture which had penetrated Akkad had also spread westward, and was not strange to the invading Amorites. The early Babylonian kings had names which are Sumerian in form. Their costume, and the official language used in their inscriptions were also borrowed from the Sumerians.¹ They seem to have adopted the culture and customs which they found in Mesopotamia, and probably obtained thereby a more ready acquiescence in their domination.

It was about 1944 B.C. that Hammurabi, the greatest king of the dynasty, succeeded to the throne. To his military capacity and administrative ability is due the consolidation of the first Babylonian empire. He contended successfully with the Elamite kings who had overrun Sumer and possessed themselves of Larsa, Erech, and Ur, and in another direction he reduced to vassalage Assur on the Tigris, 200 miles north of Babylon, the seat of a small principality, which was destined some 700 years later to become famous as the cradle of the all-powerful empire of Assyria.

The most striking monument of Hammurabi's reign is the carved and inscribed stele which contains his code of laws, and to it we are indebted for a more accurate

¹ See Hall, "N. E.," pp. 176 sq.

knowledge of the social conditions and customs of Mesopotamia than of any other community of like antiquity. It probably embodies and codifies laws which had become current under Sumerian influence, but it has a special value as evidence of the organizing genius to which Hammurabi owed his success as a ruler. The top of the stele is occupied by a relief of the king standing before the seated figure of the Sun-god Shamash, whilst the greater part of the pillar is filled with the closely incised cuneiform script of his code. The language, however, is not the official Sumerian, but that "of the country," that is to say, the Akkadian form of Semitic.

Amongst Hammurabi's recorded deeds are the construction of a new canal, from the Euphrates near Sippar, for the supply of water to some of the cities farther south; and the building or rebuilding of temples in Larsa, Eridu, Lagash, and other towns. He also took measures for promoting agriculture and the breeding of cattle, and for the repression of robbery. He adopted the deities of the old cities, but eventually appropriated their attributes and functions to his own god, Bel-Marduk; and though Nippur, Larsa, Erech, Ur, and Eridu were maintained as holy cities, they lost political importance and show no actual evidence of continued growth at this time. The once powerful city of Lagash seems to have sunk into insignificance.¹

cf. p. 9
Hammurabi adopted the formal title of King of Sumer and Akkad; but it is doubtful whether he ever thoroughly subdued the region at the northern extremity of the Persian Gulf. Geographical alteration of the coastline, and probably the reclamation of marsh lands, had gradually contributed to the formation of a new principality which became known as the Sealand, and though it never had any enduring power, it became a source of

¹ Meyer, §§ 445-6.

trouble to Hammurabi's successors. He died after a reign of forty-three years, and was succeeded by his son, grandson, and three other kings, when the first dynasty of Babylon came to an end after an existence of nearly 300 years.

The immediate cause of the overthrow of this dynasty was a sudden raid of the Hatti, who are assumed to be identical with the later Hittites of Biblical history, and who at that time were becoming powerful in North Syria and Asia Minor.¹ That they were a dominant race with an independent civilization is evident from recent explorations in the centre and south-east of Asia Minor. There is, however, no evidence that they established themselves in Chaldaea, though it is probable that they remained some time in Babylon, and formed settlements in the northern regions of Mesopotamia. The downfall of Babylon coincided with an outbreak of the people of the Sealand, who seized the opportunity for assuming the overlordship of Sumer and Akkad.²

For about 165 years the kings of the Sealand appear to have been the rulers of Mesopotamia, and they are regarded as the second Babylonian dynasty. Their sovereignty came to an end about the year 1745 B.C. by a sudden irruption of the Kossaeans or Kassites, who inhabited the highlands of Iran on the east side of the Tigris. It is possible that they were a branch of the Scythian race who, at the beginning of the second millennium B.C., crossed the Oxus, populated the Iranian

¹ On this encroachment of the Hittites see Dr. Sayce's paper in J.H.S., vol. xliii, p. 45.

² Mr. Hall ("N. E.," p. 199) regards the kingdom of the Sealand as "the last expression of the national consciousness of the ancient Sumerian race," and E. Meyer (§ 454*a*) seems to agree with him. But it might be supposed that after 300 years of Semitic rule race distinctions had been obliterated, and that this antagonism was to be attributed to some commercial rivalry between north and south, or coast and hinterland.

plateau, and ultimately, as Aryans, penetrated northern India.¹

cf. 9
The leader of this Kassite invasion was a chief named Gandash: he drove the Sealand people back to their original domains and assumed the usual title of King of Sumer and Akkad. From him sprang a long line of kings—the third dynasty of Babylon—who continued to rule for nearly 600 years. The kingdom of the Sealand existed independently for about 200 years, when the last king was killed in a war with the Elamites, and a Kassite prince became its ruler under the overlordship of Babylon.

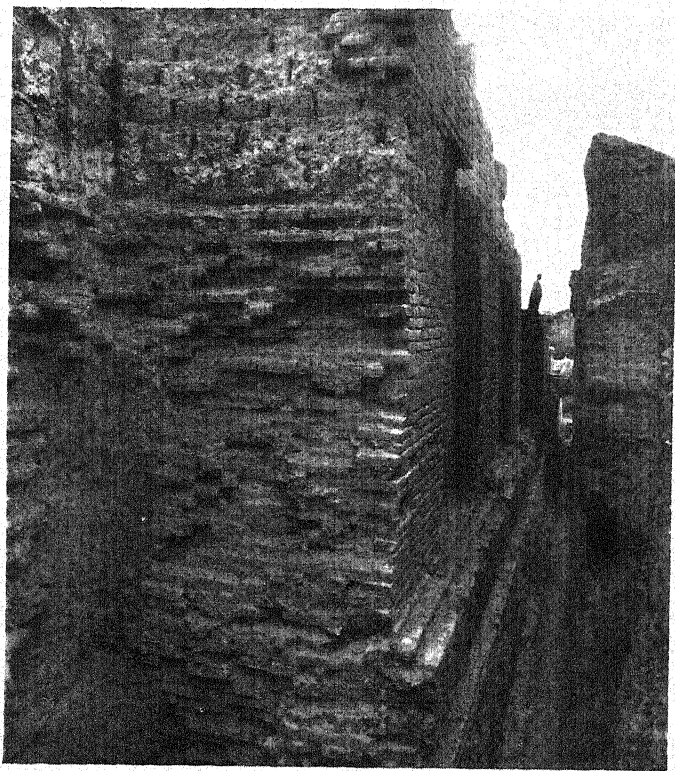
Missing link 1746-1750 B.C.
The records of the Kassite dynasty are devoid of striking events, which may imply that the state of the country was peaceful: but the absence of monuments proves that the rulers were inferior in culture to the civilized natives of Babylonia, and though they assimilated the religion and customs of the country, there is no evidence of any independent culture of their own.

cf. P. 17 Babylon.
Their dynasty was brought to an end through the rising power of Assyria, which, at one time a small principality dominated by Babylon, had now (c. 1290 B.C., grown to be a powerful military state under a warlike and aggressive king, Shalmaneser I. His successor, Tukulti-Ninib, attacked and occupied Babylon and governed it for a period of seven years. Though this aggression was soon avenged by the temporary defeat of Assyria, the weakness of the Babylonian king in repulsing renewed attacks led to an internal revolution. A new national dynasty, known as that of Pashe, dis-

¹ Mr. Hall ("N. E.," pp. 201, 212) assumes that the Kassites were Aryans; Meyer, on the other hand, says that they were not an "Indo-Germanic" race, but neither were they Semites, or related to the Elamites or Sumerians (§ 456), though he admits of some Aryan infusion. Mr. J. Kennedy (J.R.A.S., 1919, p. 496) speaks of the Aryans as having possibly aided the Kassites in the conquest of Babylon.

placed the Kassites about 1180 B.C., and ruled the country for 132 years.

Under this, the fourth dynasty of Babylon, there was for a time peace, until the reign of Nebuchadnezzar I, an energetic and ambitious king. He engaged in a successful war with Elam: but Assyria had again become aggressive, and in a conflict which broke out between the two monarchies some Babylonian territory was lost. From this time the history of Mesopotamia is a record of repeated struggles for mastery between the rivals, in the course of which Assyria slowly but surely grew in military power and ambition: and it is in the monuments of that country that the progress of Mesopotamian art and culture will have to be traced.



NIPPUR: THE NORTH ANGLE (CUT AWAY) OF THE ZIGURAT, AND
THE NORTH-WEST SIDE AS RE-FACED BY ASHURBANIPAL

(University of Pennsylvania.)

CHAPTER IV

ANCIENT CITIES OF CHALDAEA

THE foregoing outline of early Chaldaean history will probably suffice to indicate the special influences under which the cognate civilizations of Babylon and Assyria arose. An indigenous population with a large Semitic infusion appears to have been invaded by another race, non-Semitic in origin, and more advanced in culture and customs, who originated and set a permanent mark on the future culture of the whole of Mesopotamia. The result was a general uniformity, or, at least, similarity, in religion and language and the arts of social life which were readily adopted and assimilated by later Semitic or alien infiltrations. And though the dominating race failed to establish their language permanently or supersede that of the basic population, they brought with them the art of writing, in which the popular tongue found literary expression.

In respect to architecture, the same general similarity prevailed, but its origin, as in other countries, is obscured by the fact that the earliest structures were perishable, and in towns have been superseded by later buildings. In most cases this is attributable to the primitive use of timber, which sometimes, as is particularly noticeable in the western parts of Asia Minor, has left secondary evidence of its use by its imitation in stone.¹ In Mesopotamia, however, it is unlikely that such early structures ever existed. In all probability the largest

¹ See "Hellenic Architecture," pp. 133-5.

proportion of the prehistoric population consisted of nomadic tribes—wanderers from the sandy desert on the west and south—who lived in tents made of strong rushes covered with skins, or in some cases in tent-like huts in which hardened mud supplied the place of skins. It is thus that the comparative scarcity of accumulations of neolithic objects, such as pottery, idols, or primitive tools, may be accounted for. It was only when the influx of an alien race of more sedentary habits, from some more elevated regions beyond the Tigris, brought, amongst other arts, that of constructing durable buildings, that architecture took its rise. For these people the absence of large timber and stone presented no insuperable obstacle.

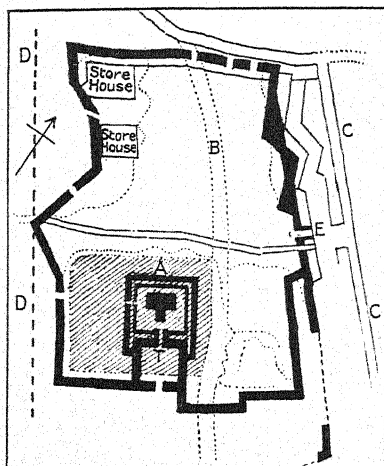
From the latitude of Baghdad to the head of the Persian Gulf the surface consists of an alluvial and partly marshy plain, from which, in a few places, the underlying sand crops out in the form of a stony ridge. The surface generally is composed of fine detritus, brought down from the more mountainous regions on the north. It is consolidated in a thick deposit of clay with rare blocks of limestone which have been carried down when the rivers were swollen with the periodic rains. Of forest trees there are none, and the soft-grained palm is useless for permanent structures. The only material at hand was the tenacious clay, already in use for huts when any fixed abode was required. Builders intent upon the construction of larger dwellings or temples would speedily learn to provide a useful and uniform substitute for stone by moulding this clay into bricks which could be dried and hardened in the sun. The few stone boulders served for thresholds or, in some favoured places, as footings and facings for the lower walls. Crude brickwork, however, has only a limited durability, and gradually deteriorates under the ordinary changes of weather. Hence it is that in the earliest records which

are found in the shape of inscribed and kiln-baked tiles frequent references to the restoration of temples occur. But in the oldest sites which have been excavated, beneath work that dates from the later days of Babylonian or Assyrian dominion, may be found a core or substratum of sun-dried or crude brick assignable to the early period of Sumerian ascendancy. Such is the case at Nippur where extensive excavations carried out by American archaeologists have revealed beneath later structures walls of crude brick of a date anterior to the age of Sargon or Naramsin. The same is the case at Muquayar, on the site of the ancient Ur, a name which recent events have recalled to common use.

NIPPUR. The uniformity of the material employed is accompanied by a general similarity in the forms of buildings. From the earliest structural remains, as well as from the evidence of inscriptions, it is evident that the building of new temples as well as the repair of old ones were amongst the principal objects to which the ruling powers gave continuous attention. At Nippur, which, whether under Sumerian or Semitic domination, remained for many centuries the chief religious centre of Mesopotamia, some remains of the temple, much obscured by later buildings, still exist. The American excavations¹ on the site show that the original settlement dates from a very remote age and consisted of little more than a mound, approximately square in shape, upon which a crude brick platform was erected to support the temple or shrine of the local deity, Ellil, later identified with Bel. According to the Chaldaean custom its angles were placed towards the cardinal points. Round this were crowded the smaller buildings required for the service of the temple and the huts of

¹ "Excavations at Nippur" (Babylonian Expedition of the University of Pennsylvania). Described by Mr. C. S. Fisher. Philadelphia, 1905, etc.

the villagers. The shape of the mound and the character of the surface indicate that an ancient branch, or probably the principal current, of the river Euphrates ran close under its east side, and the artificial elevation



TEMPLE AREA AT NIPPUR

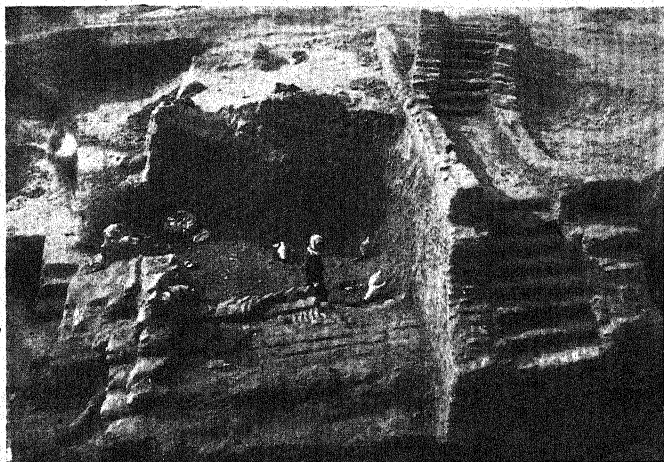
(From Mr. C. S. Fisher's Report.)

- A Primitive mound.
- B Early course of the river.
- C C Later canalization.
- D D Still later course of the river, on the west of which the town was extended.
- E Ramped approach from quay.
- T Temple enclosure, with the zigurat on the north.

of the inhabited area was no doubt necessitated by its periodical overflow. But the course of the river must have shifted or been diverted in pre-Sargonic days, for it still appears on the east after the walls had been extended on the north and east considerably beyond the limits of the primitive settlement. They then included an area which is in a general way four-sided, but is curiously irregular in plan, with various angular projections. The river was again diverted to the west side of this enclosure, and as the population had extended largely on the west, it now

cut the city in two, the larger part on the west being the commercial and secular town, whilst the walled enclosure on the east was reserved as a purely ecclesiastical quarter. The most interesting portion of these ancient walls is found on the north-east. Here

there was a wide gateway approached on the outside by stairs which led upwards from a kind of dock or canal-basin in the former bed of the river. The ascent to the gate consisted of a triple gangway—a central passage about thirteen feet wide for the landing of goods, flanked on each side by a narrow-stepped foot-



NIPPUR: THE RAMPED APPROACH AND STAIRS FROM THE QUAY TO
THE GATE IN THE EAST WALL

The stairs are of two periods, both pre-Sargonic.

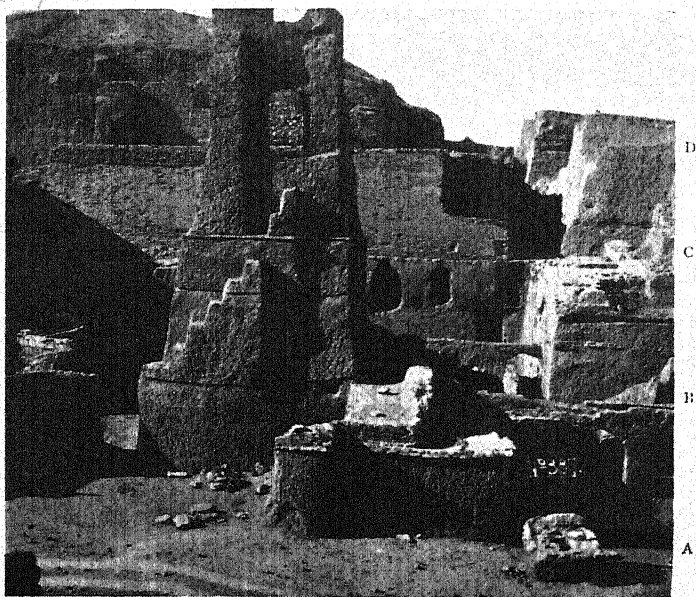
(University of Pennsylvania.)

way. The central and left-hand passages are ruinous, but on the right the stairs remain *in situ* and consist of two flights. The higher one is of later construction than the other, and was possibly an addition due to the increased height of the inner platform, which, like most ancient sites, was continually rising through the accumulation of débris. Both periods represented by this

staircase are pre-Sargonic, *i.e.*, are probably included in the first quarter of the third millennium B.C.

The explorations have shown that the walls were raised by Sargon's son, Naramsin, whose name, accord-

*fragments
in the case of
Abachollo
Ira - Indur*



NIPPUR: THE TEMPLE COURT FROM THE SOUTH-EAST

(University of Pennsylvania.)

The tower-like structure in the middle shows a doorway of the later fortress at what was then the surface level (D). The others are the primitive level (A), that of Sargon and Naramsin (B), Ashurbanipal's (C).

ing to a custom introduced by his father, appears on the bricks. He followed generally the lines of the older walls, but based them upon a new terrace which was superimposed upon the wider terrace which already existed on the outer side.

A still later wall was built above that of Naramsin, the bricks of which bear the name of Urgur,¹ but it was made to take a straighter course and cut off some of the irregular angles. On the low interior platform or step which ran along its foot were built several small chambers—the largest excavated was about ten feet square—which might have served the purpose of guard rooms, to one of which was annexed a privy in the thickness of the wall. Farther north was a kiln for firing pottery, with an elliptical vault constructed with *voussoirs*. The exterior of the wall, and, in some places, the interior, had shallow buttresses at intervals of twenty-nine feet, or rather less. In the débris were found a large number of solid terra-cotta cones about $5\frac{1}{4}$ inches long. The circular heads which were about an inch in diameter, were coloured mostly red or black. They had evidently been inserted in the clay wall whilst it was still soft so as to form an ornamental string or frieze. Their use is illustrated in other sites (see p. 49 below).

The dynasty of Ur had become predominant in Chaldaea about 200 years after Naramsin's days, and both Urengur and his son Dungi (c. 2350 B.C.) restored the temple and remodelled the tower or zigurat round its original core. It is not probable that it ever had more than four receding stages. The surface of the lowest stage was reached by a long and wide flight of steps; the upper stages by smaller flights arranged in pairs against the front.² At a later date the aspect of the

¹ This name occurs as that of a *patesi* of Lagash, but in this case it is a variant of Urengur of Ur. See Meyer, § 412*n*.

² See "Excavations at Nippur" (Fisher), pp. 15, 16. It is strange that Dr. Koldewey ("Excavations at Babylon," p. 194) throws doubt upon the existence of graduated stages in any of these towers, and without discussing the evidence suggests that they were simply pyramidal in form with a single "colossal staircase" leading to the top. Meyer seems to agree with him but rather ambiguously; for in § 380*n*. he throws doubt on the evidence of

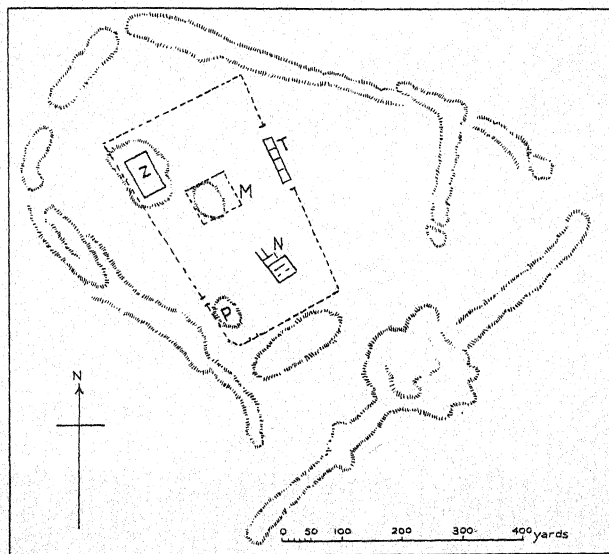
temple and its tower was altered and obscured by the rise in the level of the court in which they stood. Its final and most destructive alteration took place, after the fall of Babylon, by the conversion, under foreign rulers, of the temple area into a strong fortress. A projecting bastion was added at each side, strong walls and a ditch were constructed round its enclosing court, and the outer walls of the larger enclosure, where they were not incorporated in the fortress, were dismantled or allowed to fall into decay.

Though Nippur retained for many centuries its sacred character as the religious metropolis of Sumer and Akkad, its commercial activity and political importance gradually waned before the growing competition of Babylon. Its decline, which it shared with the older cities of southern Mesopotamia, was accelerated, if not occasioned, by the changes in the main stream of the Euphrates, which gradually forsook its eastern course through Nippur and Erech (Warka) and adopted another channel which passed close by Babylon and gave to the latter the commercial pre-eminence which it retained to the end.

MUQUAYAR. Among the first Mesopotamian sites to be explored was that of one of the most ancient cities of Sumer, known in Biblical history as "Ur of the Chaldees," and named by the Arabs "Muquayar" (the bituminous). It lies about six miles from the Euphrates on the west side near where, in ancient days, it must have entered the Persian Gulf. The extent of the ancient

Rawlinson and Layard, though in the preceding text he speaks of the zигurat at Nippur as having a ramp leading to the top which winds round the building; and in a later passage (§ 403) describes it as rising in stages ("in Etagen aufsteigenden"). It will be seen, therefore, that though he disagrees about the ramp with Mr. Fisher's account given above, he comes very near to one of the suggested restorations of Perrot and Chipiez which he describes as untenable ("nicht haltbar").

town walls is indicated by mounds rising from 12 to 20 feet above the plain, which enclose a quadrangular area about half a mile in length, with rounded angles which lie, as usual, towards the cardinal points. The circumference is between $1\frac{3}{4}$ and 2 miles. The most prominent



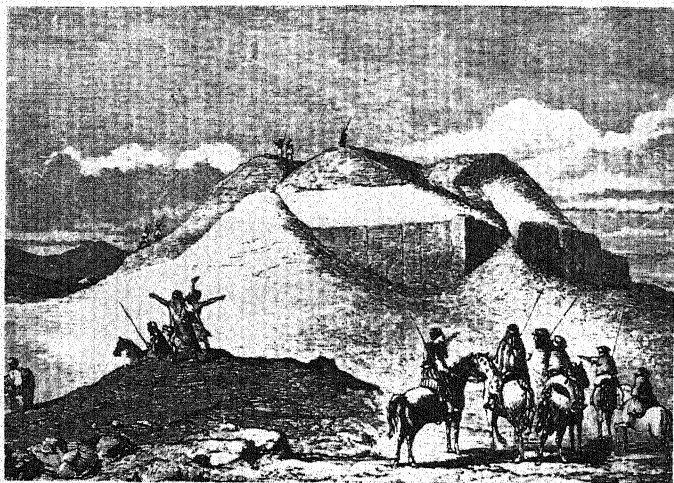
SKETCH-PLAN OF REMAINS AT MUQUAYAR. (Soc. Ant., 1919)

M, shrines of moon-god and consort. N, temple of Nannar.

P, site of palace (?). T, temenos wall. Z, zigurat.

structure within the walls stood upon a mound of earth 20 feet high, and consisted of a large rectangular platform built of burnt bricks, plentifully cemented with bitumen. When first described two sides, the north-west and south-west, were only partially covered by débris and sand, and excavation showed that the area at the

top was about 209 by 132 feet. The sides were 27 feet high and slightly battering, whilst the plainness of their surfaces was relieved by buttresses or "pilaster-strips" 8 feet in width and a little over 1 foot in projection. There are nine of these at the sides and six at the ends. The whole surface is pitted over with small holes,



THE ZIGURAT AT MUQUAYAR IN 1854 FROM THE WEST-NORTH-WEST

From a drawing by W. Boutcher.¹

apparently made for the purpose of ventilating or drying the interior. The longer sides face towards the north-east and south-west, and there was a staircase leading to the upper surface of the platform on the north-east side. Upon it are the remains of another rectangular

¹ The view given is copied from Loftus (p. 129), but the orientation has been rectified to agree with his plan and description; the drawing seems to have been reversed in the process of engraving.

mass of brickwork, without buttresses, measuring about 119 by 75 feet, but it is not placed concentrically on the lower one, being nearer to the north-west end than to the south-east. The total height of the ruined structure is about 70 feet above the general level of the plain, but in the opinion of the most recent excavator there were two more stages, *i.e.*, four in all, diminishing successively in area, and from the first platform a ramp ran round the sides of the building till it reached the top on which, presumably, there was a small chamber or shrine. Though there were indications of a doorway in the side of the lower stage, near the staircase, investigation seemed to show that there was nothing but solid masonry behind it, consisting, with the exception of a facing of burnt brick 4 feet thick, of a mass of crude or partially burnt brick. Excavation on the second stage led to the discovery of four inscribed cylinders imbedded in the angles of the upper platform, which recorded the fact that the whole building was a restoration by Narbonidus (*c.* 550 B.C.) of an ancient temple-tower or zigurat founded by Ur-Engur and Dungi (*c.* 2400 B.C.) in honour of Nannar (afterwards Sin) the Moon god, of which cult Ur was the centre.¹ This evidence is corroborated by the stamps on some of the older bricks, and allows of no doubt that the building is a representation, and, in

¹ The first excavations were made for the British Museum in 1854 by Mr. J. E. Taylor, British Vice-Consul at Basra, and are described in J.R.A.S., vol. xv. The site was also visited by Loftus. In 1918-19 Messrs. R. Campbell Thompson and H. R. Hall made further explorations for the British Museum, with interesting results. See *Proc. Soc. Ant.* (2nd series, vol. xxxii) and "*Archaeologia*," vol. lxx. Still more recent excavations under Mr. C. L. Woolley are in progress. He mentions a platform built out at one side, which to some extent explains Taylor's rather enigmatical account and illustration. This was an addition of Narbonidus, who is also said to have faced part of the building with blue glazed tiles. A statue of Entemena, King of Lagash, was also found. See "*Times*," 14 May and 16 July 1923.

the lowest stage, to a large extent a survival of early Sumerian religious architecture.

The first important addition to our knowledge of the architectural features of Muquayar was the discovery by Mr. H. R. Hall of the remains of a building of the time of Ur-Engur near the centre of the site.¹ The plan is still only partially disclosed, and is complicated by the remains of later buildings, some of which show that the city continued in occupation as late as the fourth century B.C. The most recent excavations² indicate that this was the shrine of Nannar, and the foundations uncovered appear to be those of the high-priest's dwelling with part of the actual sanctuary on the north-west.

About 100 yards to the north of this building, and 50 yards east of the zigurat, the remains of another large temple, also dedicated to the Moon god, were disinterred, but its original plan had undergone considerable alteration by Nebuchadnezzar II and Cyrus.

Mr. Hall also uncovered some walling which he recognized as part of the *temenos* or outer wall of the temple precincts. It consisted of a double wall divided by cross-walls into rectangular casemates which could only have been accessible from above. The uncovered parts of both walls had buttresses at intervals of 8 feet, and the spaces between them on the north-east or exterior side had vertical rebated grooves which are a characteristic decorative feature in Mesopotamian temple architecture of all periods. It is now made evident that all the sacred edifices were included within a quadrangular *temenos* enclosing an area of about 440 by 260 yards, of which the zigurat occupied the north-west angle.

Taylor partly excavated several mounds. A small one

¹ See Proc. Soc. Ant., 1919, p. 25.

² These were undertaken in 1922 by Mr. Woolley for the University of Pennsylvania and the British Museum conjointly. See the Antiquaries Journal, vol. iii, pp. 31 *sq.*

about 45 yards from the east angle of the zigurat was found to contain a building which he calls a house, but which must have been part of one of the temples of Nannar. It stood on a brick foundation, and was paved throughout with kiln-burnt bricks imbedded in bitumen. The walls which were found standing were constructed of large baked bricks, some of those used at the angles being triangular in shape. Quantities of charred wood were probably the remains of beams which once supported a flat roof.

Two arched passages which ran through the walls were constructed with radiating voussoirs. The descriptions of both Taylor and Loftus, who also visited the place, imply that some of the bricks were enamelled on the surface, and the latter mentions the "stepped recesses," that is the rebated grooves, which decorated the walls, as was the case in walls recently discovered.¹

One of the largest mounds examined by Taylor is situated near the centre of the northern portion of the site. On examination it was found to contain a brick structure with walls about 10 feet high and a flat top, the interior of which was nothing but a vast mausoleum. Most of the skeletons found in it were laid on a brick paved floor and shielded by domed or flat elliptical covers of rough sun-dried earthenware with plain mouldings round the sides. Other burials, probably of more importance, were in brick-built vaults about 7 feet long by 5 feet high and $3\frac{1}{2}$ feet broad, which were roofed on the corbelled system. The most interesting constructive feature was a double vertical shaft formed by rings of baked clay 2 feet in diameter and 18 inches in depth, which were cemented together by thin layers of bitumen. They were apparently intended to carry off rain water from the upper surface of the structure. "For the space

¹ Taylor, p. 265; Loftus, p. 133.

of 1 foot right round these shafts and throughout their whole length were pieces of broken pottery the more effectually to drain the mound. Above the mouth of the top ring, which is of a different shape from the others, were layers of perforated bricks leading up to the top of the mound."¹ This mound must have been a later place of burial, and it was far from being the only one, for other portions of the site and the ground for some distance round the wall of the town was full of sepulchral remains, and it is evident that down to a late period in its history it was used as a necropolis.² Such was also the case at Nippur, Erech, and other ancient religious centres of Chaldaea—and the custom of bringing the dead from a long distance for burial at a holy place survived in Mesopotamia to modern times.³ This may account for the absence of common burial places in Assyria, though interments within the walls or beneath the floors of dwellings are not uncommon. According to Meyer (§ 366*n*.) the Babylonians and Assyrians never cremated the dead.

EL OBEID. Four miles to the west of Muquayar Mr. Hall excavated a mound known as Tel El Obeid, in which he found remains of a small zigurat-like structure of pre-Sargonic date, built of plano-convex bricks.⁴ Under a later pavement of about the time of Dungi, he discovered an extraordinarily interesting deposit of old works of art which had evidently been purposely mutilated and buried. It included heads or foreparts of lions, bulls, birds, etc., consisting of an outer coating of moulded copper, in some cases nearly destroyed by oxidization, filled in with a compound of bitumen. Most remarkable was a copper panel 8 feet by 3½ feet in size representing in high relief a lion-headed eagle holding on to two stags. The whole constituted a marvellous

¹ Taylor, p. 268.

² Loftus, pp. 54, 55.

³ *Ibid.*, p. 275.

⁴ See *post*, p. 41 *n*.

exhibition of early Sumerian art dating from before 3000 B.C.

The most interesting architectural objects found on the site were the remains of decorative column-shafts, made of hardened clay, with a surface-mosaic of small squares and triangles of limestone, sandstone, and mother-of-pearl.¹

ABU SHAHRAIN. In the year 1855 Taylor partially excavated the ruins at Abu Shahrain (the ancient Eridu), which lie about 12 miles south-west of Muquayar.² The mounds which then represented the outer wall rose abruptly from the plain to a height of about 20 feet, including the raised platform which underlies the whole site, and which, at the north-west end, is faced with a thick revetment of stone, backed by clay. The interior mounds attain a height of nearly 40 feet and from a distance present a level appearance except towards the north end, where a sharply pointed eminence indicates the remains of the zигurat and the position of the principal building. The area within the walls was approximately rectangular, with its angles towards the cardinal points. The whole circuit of the walls was about 1,100 yards, and apertures in the line of mounds show that there were entrances on the south-east, south-west, and north-east



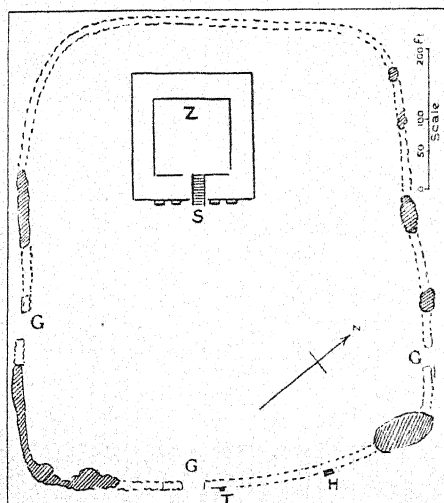
MUD COLUMN
WITH MOSAIC
INSERTIONS,
FROM EL OBEID

(From photograph, Proc. Soc. Ant., 1919-20.)

¹ Proc. Soc. Ant., 4 December 1919.

² Taylor's excavations were extensive and careful, but the recent explorations of the site by Mr. R. C. Thompson in 1918 and Mr. H. R. Hall in 1919 have done much to elucidate its history and that of Mesopotamia in general. See "Archaeologia," vol. lxx, and Proc. Soc. Ant., 1919-20.

sides. The temple-tower stood upon a raised platform, partly paved with burnt bricks and raised some feet above the general level. The lower storey of the tower was nearly square in plan, with sides, according to Taylor, of about 180 feet in length, and also faced



SKETCH-PLAN OF REMAINS AT ABU SHAHRAIN (ERIDU)

From Taylor (*J.R.A.S.*, vol. xv) and Mr. R. C. Thompson (*"Archaeologia,"* vol. lxx).

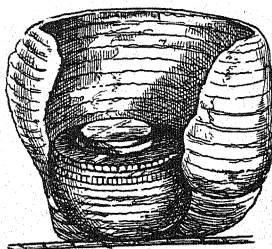
G G, gates. H, Mr. Hall's stone bastion. T, Taylor's brick bastion. S, stairs to ziggurat (Z).

with burnt brick. Since Taylor's excavations in 1855 it seems that many features noticed by him have been wholly or partly obliterated by denudation or again concealed by débris from the upper part of the building. His plan shows the front wall of the lower stage thickened at intervals by four buttresses, or bastions as he calls them, and in its centre he found the remains of a stair-

way to the upper stage of the zigurat. Its length, measured along the incline, must have been about 90 feet and the width 15 feet; slabs of marble which had formed the steps were found lying about. There was a second stage, as at Muquayar, which Taylor supposed to have been ascended by a ramp instead of a stair. It is now represented by the pyramidal ruin, the summit of which is about 84 feet above the level of the surrounding plain. From pieces of agate, alabaster, and marble, gilt-headed nails and small fragments of thin gold which Taylor found scattered about the mound he concluded that a richly ornamented chamber or shrine had existed at the summit of the zigurat. At the foot of the stairway above-mentioned he found the remains of one of a pair of columns which must have decorated the entrance. It was of peculiar construction, being built up of slabs of sandstone alternated with layers of small marble cylinders laid with their ends outwards. This was

used as a core and was enlarged by successive coatings of concrete composed of pebbles and lime until the lower part assumed the form of a large spheroidal base.¹ This conglomerate column may be compared with those which Mr. Hall found at El Obeid. If the date of these is before 3000 B.C., as suggested by Mr. Hall, it is evident that the column was used as a decorative feature from the early days of the Sumerian occupation.

The excavations made by Mr. R. C. Thompson on the north-east face of the zigurat, in continuation of a



DISSECTED COLUMN-BASE
FOUND AT THE FOOT OF
THE STAIRS

¹ This spheroidal form of base was used to a much later date. See below, p. 153.

previous examination by Taylor, show that its lower storey was faced with burnt brick, the interior being a solid mass of crude brick. Below this was a projecting ledge of about 4 feet wide, built up in four or five courses of burnt bricks set in bitumen, which was itself based on a platform of puddled clay and crude brick battering outwards to a depth of 5 feet. Below this was a further projecting foundation of unburnt brick and clay. A curious feature of this was that about a foot below its upper surface there was a thin horizontal layer of red clay and black ashes, such as might be left after the destruction by fire of some more primitive structures of timber and clay. The bricks above this level bear the stamp of Bur-Sin—the son of Dungi—indicating a date for the building of the zigur at about 2390 B.C., as estimated by E. Meyer.¹ These recent researches tend to show that the site was occupied in a pre-Sumerian, and possibly a neolithic, period, and to corroborate the tradition that Eridu was one of the oldest cities of Mesopotamia.²

The use of stone for walling is an exceptional feature at Abu Shahrain. The outer wall of the platform on which the temple stands was “composed for the most part of a massive wall of sandstone twenty feet high, backed with beaten clay.”³ This stone was no doubt derived from the sandstone ridge which crops out a few miles on the east of the site. But the inner platform appears to have been revetted to a considerable thickness with limestone, the presence of which is more difficult to account for.

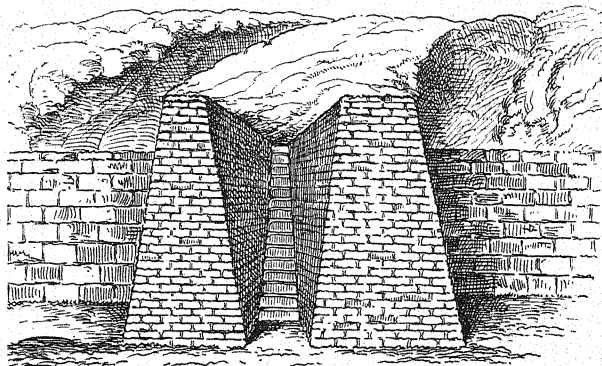
In the southern part of the site Taylor unearthed a mass of brickwork which was evidently a bastion near the entrance in the south-east wall of the city. It con-

¹ Meyer, p. 569.

² See “*Archaeologia*,” vol. lxx, p. 106, and Hall, “*N. E.*,” p. 177.

³ Taylor, *J.R.A.S.*, vol. xv, p. 408.

sisted of two buttresses 8 feet high, but differing in width, with battering sides, portions of which were built up with red burnt plano-convex bricks,¹ later additions to each having been made in yellow baked bricks of the ordinary shape. Between the buttresses was a wall of limestone built in horizontal offsets of diminishing width which gave its surface a slightly concave shape. This



ABU SHAHRAIN: BRICK BASTION EXCAVATED BY TAYLOR

Redrawn from his sketch (*J.R.A.S.*, vol. xv, p. 409),
but corrected to accord with his measurements.

was part of the town-wall which was continued on either side of this bastion in vertical courses of limestone. Another bastion entirely of stone was found by Mr. Hall about 45 yards eastward in the same wall.

¹ These bricks are thicker at the middle than at the ends, one side only being a plane surface. They were in use about 3000 B.C. This kind of structure is described by R. C. Thompson as "amongst the earliest Sumerian building work in burnt brick as yet known" (*"Archaeologia,"* vol. lxx, p. 117). See also *J.R.A.S.*, vol. xv, p. 409. The present ruinous condition of Taylor's bastion is illustrated by Mr. Thompson.

At the eastern corner of the site, within the wall, Taylor excavated the remains of some dwelling-houses. The walls were of sun-dried bricks, lined inside with fine plaster, and rudely decorated with a design of human figures in red pigment. The wall was of beaten clay, and portions of the roofing still rested on the walls. They consisted of fragments of concrete composed of bricks and stones, and had a curved surface indicating that they were portions of a domed covering.¹ Though nothing of interest was found within the walls, numerous objects and implements such as hammers, nails, and chisels of stone, and even sickle-like instruments made of baked clay were scattered about in the neighbourhood.²

Similar buildings, probably of early Sumerian date, were recently excavated by Mr. Hall in a mound near the north-east gate of the town. The walls here were lined with plaster and decorated with broad bands of white and red colour.³

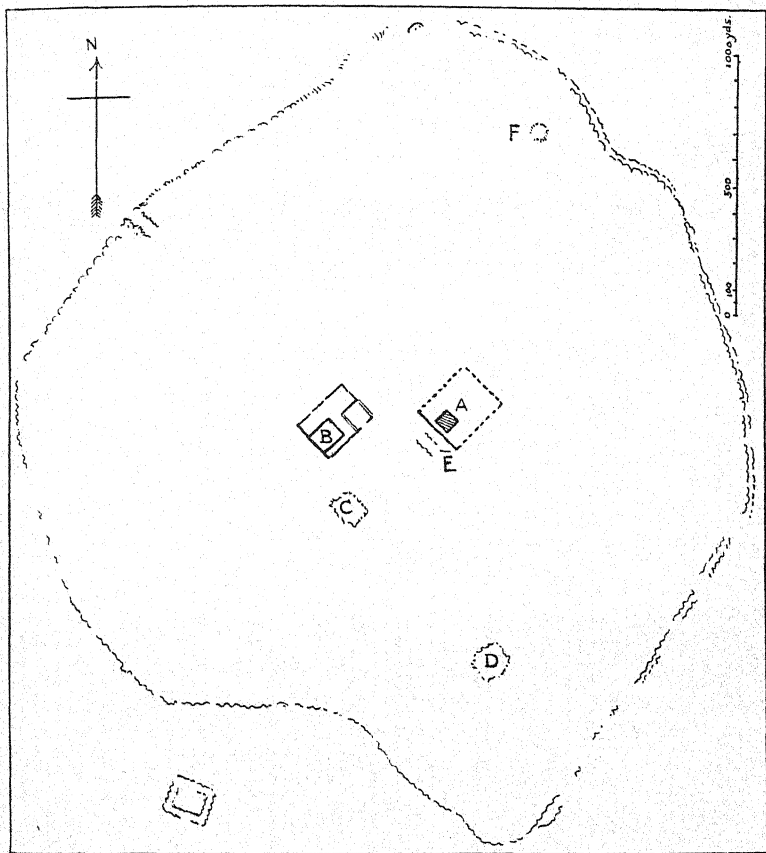
WARKA. Of the work done by W. K. Loftus in Mesopotamia, the most important was the planning and partial excavation of the mounds at Warka, the ancient Erech, which lies about 40 miles north-west of Muquayar, not far from the left bank of the Euphrates. From the extent and magnitude of its remains Loftus considered them "alone worthy to rank with those of Babylon and Nineveh."⁴ He describes the impression which the sight of them made upon him. "Three massive piles rose prominent before our view from an extensive and confused series of

¹ Taylor, p. 412.

² *Ibid.*, p. 410 and Plate II, and "Archaeologia," vol. lxx, p. 121.

³ It is reassuring to be told by Mr. Thompson that he has the greatest admiration for Mr. Taylor's diggings. It is only to be regretted that Taylor had not the means of giving accurate drawings of his architectural discoveries, some of which have been obliterated or much impaired by the lapse of time ("Archaeologia," vol lxx, p. 119).

⁴ Loftus, p. 124.



SKETCH-PLAN OF THE RUINS AT WARKA (ERECH)
(From Loftus.)

A, remains of zигurat. B, palace. C, unnamed ruin. D, a late tower (? Parthian).
E, wall with mosaic of cones. F, conical mound.

mounds, at once showing the importance of the ruins which we—their first European visitors—now rapidly approached. The whole was surrounded by a lofty and strong line of earthen ramparts, concealing from view all but the principal objects. Beyond the walls were several conical mounds, one of which equalled in altitude the highest structure within the circumscribed area. Each step that we took convinced me that Warka was a much more important place than had been hitherto supposed, and that its vast mounds, abounding in objects of the highest interest, deserved a thorough exploration.”

The walls can be traced in a series of mounds forming a kind of irregular polygon about $5\frac{1}{2}$ miles in circumference, with rounded angles towards the cardinal points. In one portion towards the north-east they remain to a height of about 40 feet with a width of perhaps 20 feet, and though on the south-west they have been levelled with the ground, they still show traces of a line of semi-oval turrets, or rather bastions, (for they are open on the inner side) about 50 feet apart, with walls of from 4 to $5\frac{1}{2}$ feet in thickness.¹

The central portion of the area enclosed was a large and apparently artificially made plateau, on which the principal buildings were erected. On this several lofty mounds stand out above the numerous smaller accumulations of debris which mark the positions of less important buildings. The tallest, and apparently one of the oldest, of the structures was found to be the base of a rectangular tower 200 feet square, on each side of which was a massive buttress projecting $7\frac{1}{2}$ feet and about 6 feet wide, but divided vertically by a central channel 1 foot 9 inches wide. The whole was built of sun-dried bricks, on some of which were inscriptions in pictographic signs repeated in cuneiform.²

¹ Loftus, p. 166.

² One inscription illustrated by Loftus is thus translated by

The character of the masonry is peculiar: the brickwork is interspersed at intervals of four or five feet with a course of reeds. Upon and under these layers four or five rows of the bricks or tiles are laid flat,¹ but others are placed on edge, so that outwardly both flat surfaces and narrow edges are visible. Small oblong apertures, which penetrate the whole mass, are found here as elsewhere.

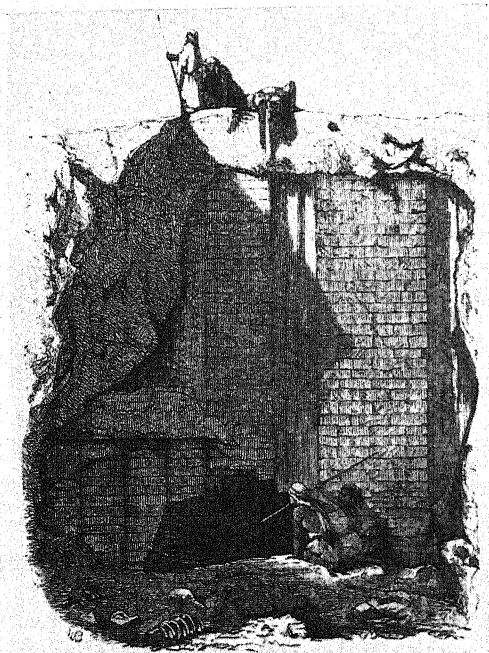
The upper surface of the building is flat, and as the sides batter its area is considerably less than that of the base. There are traces of a brick superstructure, but it is evident that it had undergone restoration some centuries after its original construction. It appears from Loftus's plan to have stood at the south-west end of a rectangular enclosure, and was evidently the ruins of a zigurat.

The most important building at Warka is an immense mass of brickwork standing within a rectangular enclosure some 300 yards to the west of that just described. The whole area is above 7 acres in extent, having sides respectively 650 and 500 feet in length, with the usual orientation. The building itself is a rectangle of 246 by 174 feet, one end of which coincides with the short south-west side of the enclosure. At the north-east end, on a rather lower level, is a nearly square space which was apparently a forecourt to the palace or temple. Its south-west end and the outer wall on which it stands rise abruptly to a height of 80 feet above the general level of the plain, and above the mound on

Prof. G. Rawlinson: "Beltis his lady has caused Uruk the pious chief King of Hur and King of the Land of the Akkad to build a temple to her" ("Five Great Monarchies," vol. i, p. 64). Uruk, King of Hur, is no doubt Ur-Engur of Ur, *circa* 2500 B.C. (see *ante*, p. 14). A very similar, if not the same, inscription of Dungi is given by G. Smith, p. 232.

¹ The Arab name for this sort of brickwork is given by Loftus as Buwariyya, signifying "reed mats." The term is found applied to similar work elsewhere.

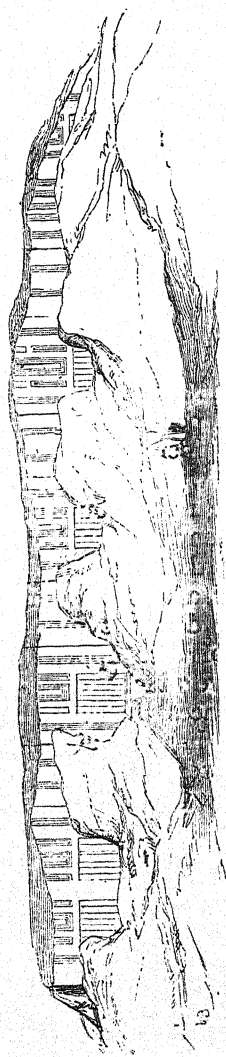
which it stands a face of brickwork 174 feet long is partially exposed to a height of $23\frac{1}{2}$ feet from its base line to its somewhat broken summit. At the base of this



THE OLD EXCAVATION OF THE PALACE WALL.

Showing part of the cylindrical pilasters and a rebated vertical channel. (Loftus.)

façade was a pavement $3\frac{1}{2}$ feet wide thinly coated with plaster, from which the wall of sun-dried bricks rises perpendicularly. This wall has some special interest because it exhibits on a large scale a probably early



Section of the lower panels

Section of the upper panels

NORTH-WEST WALL OF THE PALACE OR TEMPLE
(Lofius.)

The length is 174 feet. The black mark shows the position of the old excavation.

specimen of mural decoration which is peculiar to Babylonian and Assyrian architecture. Its face, except towards the ends, is broken at regular intervals by shallow recesses $12\frac{1}{2}$ feet wide extending from top to bottom, each of which has two vertical grooves or channels with doubly rebated edges.¹

The spaces between these recesses are about 16 ft. 5 in. wide and are somewhat more elaborately decorated, for the lower half of each has a large panel of seven half-columns in close contact, built of bricks moulded to the required form; whilst the upper half, separated only by a narrow blank space, has three sunk and rebated panels. The middle one, which is above the three central half-columns, is broader and deeper than the other two,



PLANS OF WALL-DECORATION

the upper parts of which are filled with a semi-cylinder like those in the groups below. On the central panel Loftus mentions that there are two crescents, a larger and smaller one —no doubt symbols of the

Moon-god Sin. On each side of both upper and lower stages is a vertical rebated groove 7 inches deep, traversing, like those in the recessed spaces, the whole height of the wall. The base of the wall has no plinth: instead there is a narrow band of plaster $1\frac{1}{2}$ inch wide which reproduces the original plane surface at the base of the vertical grooves and semi-columns. The whole front has been coated with plaster from 2 to 4 inches thick, but there is no trace of colour.²

The interior of this building was only partially exca-

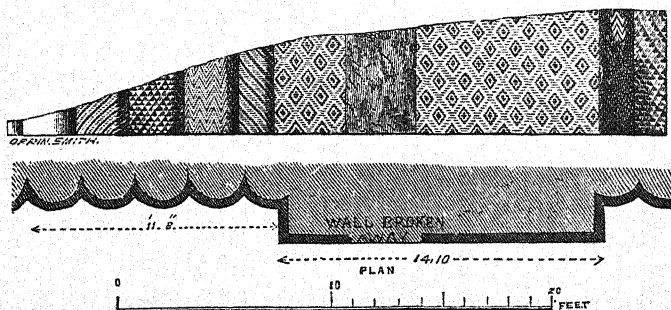
¹ These grooves are said to be distinctive of temple architecture, and not found in secular buildings in Babylonia (see King's "Babylon," p. 63). But it seems probable that some of these early buildings comprised both palace and temple.

² Loftus, p. 176.

vated. Loftus began at the south-west end behind the face of the wall already described. The wall was so thick that the structure seemed at first to be solid, but subsequent excavation revealed internal divisions similar to those in later Babylonian buildings. The entrance was at the north-east end, though not exactly in its centre, and led into an open court with chambers on either side. At the farther end was a large hall 57 by 30 feet in area, with its axis transverse to that of the complete building. The fact that the front wall of this and the adjacent rooms was, like the back or outer wall, about 20 feet thick, whilst the side or end walls were much less massive, gives the impression that they may have supported a barrel vault of brick or concrete, but fragments of palm wood, and the existence of holes in the walls about 12 feet above the brick pavement for a portion of the length, indicates that there had been a timber upper floor accessible from below over part of the hall. From the east end a doorway led through a small room into another hall about 38 feet long, which had a larger entrance from the front court. Altogether Loftus traced the walls of about seven rooms large and small, but as he found no decorative features, he did not pursue his investigations. As there are no windows in the outer wall or elsewhere it may be assumed that they were all lighted from above, or from apertures at the top of the walls.

Another sample of walling which was found close to the building first described—the so-called Buwariyya—demands notice on account of its curious construction. A wall 30 feet long is composed entirely of narrow cones of terra-cotta about $3\frac{1}{2}$ inches in length, embedded with the circular base outwards in mortar composed of mud mixed with chopped straw. The bases were only about seven-tenths of an inch in diameter, and some of them being coloured red and black they were arranged in close

contiguity so as to form "various ornamental patterns such as diamonds, triangles, zigzags, and stripes, which had a remarkably pleasing effect."¹ The wall composed of these cones was only fragmentary, but it showed on plan a rectangular projection 14 ft. 10 in. wide and 1 ft. 9 in. deep, though the surface was broken away for a short length near the centre—and on each side of this projection a series of semi-cylindrical, or rather segmental, pilasters placed close together.² The width of each pilaster was about 30 inches, except those adjoining



ELEVATION AND PLAN OF THE TERRA-COTTA CONE WALL
(Loftus.)

the buttress, which were little more than quadrantal in section. Had the remains of the wall extended further, it is probable that they would have been found in series of seven, as on the wall already described, alternating with buttresses, but further trenching failed to bring to light any more remains of building, nor was there any brickwork behind the cones. So far as this application of cones is concerned it may be inferred that

¹ Loftus, p. 188.

² According to Dr. Koldewey these pilasters are alternately complete and half cylinders ("Babylon," p. 244).

this wall is a rather elaborate specimen of a regular method of decoration, for similar cones were found at Nippur, and Taylor, in his explorations at Muquayar and Abu Shahrain found many scattered cones of larger size lying about. On the site of the "house" which he examined he found a baked clay cone 5 inches long with a small inscription round the base.¹ At Abu Shahrain the mounds were "literally covered with conical pieces of baked clay about a quarter of an inch to half an inch in diameter at the bottom and gradually tapering to a point; others had a rounded base, like the head of a big nail, and the point curved round."² He found others of marble and limestone from 4 to 10 inches long, some of which had the bases coloured black with an inlaid copper ring.

Another building a short distance from the south-west wall of the temple or palace enclosure also had a peculiar type of masonry. Upon a basement composed of compact earth apparently reinforced with crude brickwork was built a wall constructed of unburnt bricks and a peculiar kind of conical vase, the fragments of which lay strewn on the surface. The wall, which was very irregular in plan, with various projections and recesses, was traced for over 150 feet. "Above the foundation were a few courses of mud bricks, superimposed on which were three rows of these vases, arranged horizontally with mouths outwards, and immediately above each other. This order of brick and potwork was repeated thrice, and was succeeded upwards by a mass of unbaked bricks. The vases vary in size from ten to fifteen inches in length, with a general diameter at the

¹ J.R.A.S., vol. xv, p. 268.

² *Ibid.*, p. 411. These nail-like cones or studs are mentioned by Mr. R. C. Thompson. The bent points of some were probably intended to secure them in the soft clay or *terre pisée* in which they were imbedded.

mouth of four inches. The cup or interior is only six inches deep, consequently the conical end is solid. . . . With their circular mouths outwards they produced a very strange effect."¹

The dates of all these buildings remain somewhat uncertain. Loftus mentions that some of the bricks used in the "temple" bore the name Sin-shada, which he assigns to a king of the sixteenth century B.C., and whom he appears to regard as the builder of the zigurāt (Buwariyya).² But he supposes that they were appropriated as material by a later builder, and from the similarity of the wall decorations above described to walls found at Kouyunjik (Nineveh) and Khorsabad he concludes that such walls belong to the seventh or eighth century B.C. But on the other hand, if this were the case, some more distinct features of Assyrian or late Babylonian art in the shape of mural reliefs or enamelled tiles would be expected, and there is sufficient evidence in the remains of a highly developed Sumerian art, corroborated by the more recent explorations of Messrs. R. C. Thompson and H. R. Hall, to sanction a much earlier date.

Many other sites were partially explored in the middle of the last century by Taylor, Loftus, and Layard, but they do not appear to throw any additional light on the history of this Chaldaean architecture, based entirely on the use of brick, the forms of which are sufficiently illustrated in the foregoing examples. The remains of Babylon itself, and the discoveries in Assyria with which are associated the names of Layard, Place, and Rawlinson as pioneers, belong to a later period. The monument

¹ Loftus, pp. 190, 191.

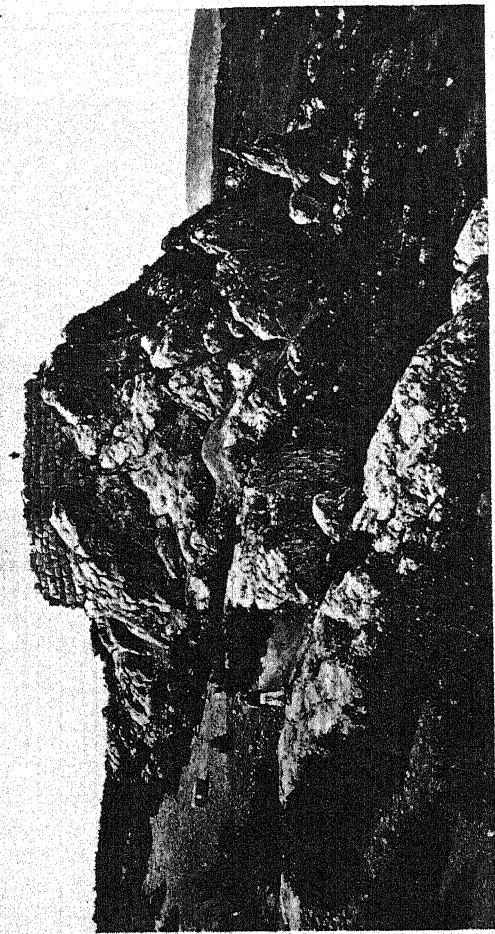
² The name Sin-shada is unknown to more recent historians. E. Meyer (§ 421) mentions a certain Sin-gashid, King of Erech (c. 2200 B.C.), who built a palace and a temple there, and who may be the same.

known as Birs Nimrūd, at the ancient Borsippa on the west side of the Euphrates, is the most important example of a zigurat, and may, like those already mentioned at Nippur, Muquayar, Abu Shahrain, Warka, and other places, retain some of its earlier features. But it is known, from stamps on the bricks, and from inscribed cylinders found within it, to have been rebuilt or thoroughly restored by Nebuchadnezzar II about 600 B.C., and therefore adds little to our knowledge of the art of earlier ages.

Recent excavations by the German Orient Society under Dr. Koldewey, have brought to light some of the earliest, as well as the latest, remains on the site of the city of Babylon,¹ and tend to show a continuous adherence to ancient forms and methods of building, especially in the structure of temples. But Chaldaea in general, after the decline of the old Sumerian cities, does not appear to have contributed spontaneously anything to the advancement of architecture until after the downfall of Assyria; when Babylon, under its last dynasty, achieved a world-wide fame, and enjoyed a brief period of splendid pre-eminence. The nature of the soil no doubt placed certain limitations on Babylonian art, which consisted largely in the ornamentation of walls with skilfully moulded and brilliantly coloured enamelled tiles.

The Assyrians, on the other hand, if wanting in originality, were quick to adopt new ideas and skilful in carrying them out; nor did they fail to hand them on to other nations with whom their aggressive policy brought them in contact. But before these facts can be duly appreciated it is necessary to consider the effects of a great Anatolian civilization which was contemporaneous with that of Babylon, and not without considerable effect on the art of Assyria, though its importance has only recently been brought to light.

¹ See *post*, chapter x.



YENIJE KALEH FROM THE EAST
(Puchstein.)

An early Hittite fort at Hatti-town (Boghaz-Kuei). See p. 68.

CHAPTER V

THE HITTITES

THE origin of the Hatti, who are now identified with the Hittites of Biblical history, and who overthrew the first dynasty of Babylon (*ante*, p. 19) in or about the eighteenth century B.C., is still uncertain. By some ethnologists they are assumed to be a branch of the so-called Mediterranean race which formed the basis of the population not only of the Aegean coasts and islands, but also of the north coast of Africa and of the peninsulas of southern Europe.¹ That Crete and the other islands of the Aegean archipelago were originally colonized from the south-west coast of Asia Minor is geographically very probable, and is supported by similarity of the people in artistic qualities and in a religious cult and symbolism. The only fact, however, that can be regarded as certain is that the Hittites were not a Semitic race. But between the raid made on Babylon—which at the latest was in the middle of the eighteenth century B.C.—and the beginning of the fourteenth, when a powerful Hittite government is found seated in the centre of Asia Minor, there is no documentary evidence to show how they rose to power or attained to the comparatively high level of culture which is evident in their monuments.

¹ According to Prof. G. Sergi's theory the whole of the south of Europe was originally populated by emigration from Africa (see Sergi, "The Mediterranean Race"). As to the Hittites, see p. 150 (*op. cit.*). He also cites Cesare de Cara ("Gli Hethei-Pelasgi") as to the spread of the Hittites in southern Europe. On the common origin of the population of Asia Minor, see E. Meyer, § 476.

But, as is not unusual, archaeological research has somewhat illuminated the obscurity. At a site now known as Sakje-Geuzi, on the eastern side of the Taurus range, where northern Syria is merged in the Anatolian peninsula, recent excavations have disclosed the growth of a local culture, extending continuously from the neolithic age to the period of Assyrian domination in the eighth century B.C. Implements of flint and obsidian, with fragments of black pottery similar to some found at Troy, and in the lower strata at Knossos, characterize the earliest period, whilst at a higher level occur shards corresponding to some of the age of Naramsin found at Susa. But the larger part of the fragments found are without distinct resemblance to any observed elsewhere, and indicate some unknown relation in ceramic art which seems for many ages to have been developed independently.¹ Even in the later and more developed arts of sculpture and architecture there are obvious signs of native independence and originality which were not without a far-reaching effect on the art of other lands.

After the raid on Babylon in the eighteenth century B.C. the Hittites do not reappear in history until some three centuries later, when the discovery of the Tel-el-Amarna letters at the palace of Amenhetep IV (Akhenaten) on the Nile shows that in the middle of the fifteenth century they had become a power in Western Asia.²

¹ See Garstang, "The Land of the Hittites," pp. 313-316. But more recent excavations tend to show that the neolithic population of Northern Syria was anterior to the Hittites, whose peculiar culture seems to have come in with the use of copper or bronze. See Mr. C. L. Woolley's report of the excavations at Jerablus (Carchemish) for the B.M., Pt. II, p. 39: also a recent paper by Dr. Sayce (J.H.S., vol. xliii, p. 48) where the Hittites are inferred to be military adventurers.

² These tablets are in the Babylonian cuneiform script, which appears to have been in use for foreign correspondence. The native

Their chief city was then in the centre of Asia Minor, some miles east of the river Halys, where its course turns northward to the Black Sea. The site is generally supposed to be that of the ancient Pteria, which was overthrown by Croesus about 560 B.C. It is now known by the name of the modern Turkish village of Boghaz-Keui, which partly trenches on its site.¹ But before their political power had become—for a time—concentrated here, it is evident that the Hittite race was spread over a vast area in Asia Minor and Syria, the more populous portion of which was farther south, near the Taurus and Anti-Taurus ranges. Here, at least, seems to have been the focus from which their culture was diffused. Their early settlement at Sakje-Geuzi has been mentioned; within a few miles on the south is Sinjerli, the site of a fortified city with many Hittite monuments. Such, also, is Marash on the north, a hill-town, on the eastern slopes of Taurus. Far to the north-east on the upper Euphrates is Malatia, and much lower on the river, where it approaches Mesopotamia, was Karchemish, which in later days became a second Hittite capital. On the western side it is difficult to set any limit to Hittite influence. Fraktin on the north-west, on the way to the Halys, is noted for some remarkable and apparently very ancient rock-reliefs, and at Ivriz on the west there are others equally remarkable, though later in date. A fortified Hittite post known as Giaour Kalesi lies on what seems to have been a main road between Pteria and the western coast of Asia Minor, and the well-known figure on Mount Sipylus, with some sculptured reliefs at Karabel in Lydia indicate that

Hittite inscriptions on monuments are in pictographic writing, which, when it is deciphered, will no doubt throw much light on the history of the people.

¹ The name given to it in inscriptions may be translated as "Hatti-town." See H. Winckler, "Nach Boghaz-Keüi."

Hittite culture had extended its influence almost to the Aegean seaboard.¹ Most of these sites and many others not yet explored were probably in primitive times the settlements of various tribes of the same race leading a semi-independent existence with occasional combinations for warlike purposes; and it may be supposed that it was an alliance of some of the more eastern clans, under a leader more powerful than the rest, which effected the raid on Babylon and expelled the degenerate successors of Sumuabu and Hammurabi.

Though the illegibility of the pictographic inscriptions which occur on many Hittite monuments obscures the early history of the people and probably conceals the names of kings or chieftains, the discovery at Boghaz-Keui of a hoard of tablets inscribed in legible Babylonian cuneiform writing—which supplements in a remarkable way the similar collection found at Tel-el-Amarna—threw a sudden light on the history of the Hittites and other neighbouring nations between the fourteenth and twelfth centuries B.C. When their metropolis first comes into historical view it was probably the largest city in Asia Minor. The remains of its walls form a circuit of about $3\frac{1}{2}$ miles. Here the king Hattusil, and after him his son Subbiluliuma, who was dignified with the title of “the Great King,” had their palace, and the seat of a widely extended government. A hundred years before this their outlying dependencies in Syria had been threatened by Egypt, for the powerful pharaoh Thothmes I had extended the boundary of his empire, at least nominally, as far as Karchemish on the Euphrates; and there had been repeated conflicts between troops in the

¹ At Calynda in Lycia, Sir C. Fellowes noted and sketched some rough polygonal walling which from its likeness to masonry at Boghaz-Keui and Eyuk seems undoubtedly Hittite. See “Asia Minor and Lycia,” 1852, p. 297. I am indebted to Prof. Garstang for this reference.

service of Egypt and the Hittite inhabitants. On the east the smaller but active kingdom of Mitanni, which lay between the two great rivers on the north of Babylonia, was continually encroaching on the neighbouring states, and was the more to be feared as their king, Tushratta, was allied by marriages with the rulers of Egypt.

Subbiluliuma's first efforts were directed towards making himself secure on the east and south-east, and though the records are obscure, it appears that he reduced the smaller principalities on the north of Syria to vassalage and overran Mitanni, if he did not actually subjugate it. In the resulting confusion Tushratta was murdered and his kingdom fell into a state of anarchy and impotence. Some years later Subbiluliuma was appealed to by Mattiuaza, Tushratta's son, and was induced to relieve the desperate condition into which Mitanni had fallen. Mattiuaza was restored to his position as king, received the daughter of Mursil, Subbiluliuma's son, as his wife, and a treaty was concluded by which Mitanni became a protectorate of the Hittite king.

Of any exploits of Subbiluliuma on the west there are no legible records, though monuments found at intervals between Boghaz-Keui and the Aegean coast lands show that Hittite influence extended far in that direction. At his death "the Great King" left a wide but apparently loosely compacted empire, which included a great part of Asia Minor, and dominated all Northern Syria and the northernmost part of Mesopotamia. It had now attained its culmination, and Subbiluliuma's sons, Arandas and Mursil, had as much as they could do to maintain it. Pacific conditions prevailed for a few years on account of the weakness of Egypt under Amenhetep IV, who gave more attention to domestic matters and religious reform than to the outlying portions of his

empire. To this period may be assigned a more rapid development in the arts of peace, the growth of cities, and improvement in monumental art. The building of the first palace on the lower ground at Boghaz Keui is conjecturally attributed to Mursil, *c.* 1330 B.C.

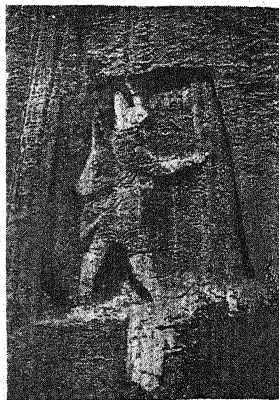
But this comparative tranquillity was not of long duration. The accession of the Ramesides in Egypt was accompanied by the revival of imperial ideas and the renewal of frontier warfare. Under Seti I the Egyptians again overran Syria, whilst the Assyrians, who had now become an independent and aggressive power under Shalmaneser I, drove the Hittites from their dependencies on the east of the Euphrates and, crossing the river, gained possession of Malatia. Mursil and his son Mutallu had to exert themselves to the utmost to maintain the independence of their dominions. The Assyrian aggression was stayed for a time, but Seti's son and successor, Rameses II, a young and ambitious prince eager for military renown, was determined to re-establish firmly his empire in Syria. The critical position of the Hittites in North Syria was obvious, and the approach of the Egyptian army was the signal for a general and united rising on the part of the whole confederacy. The names of allies and dependents who flocked to Mursil's camp not only from the regions bordering on Syria, but even from remote western districts of Asia Minor, are evidence of the wide extent and influence of the Hittite race.

The opposing forces met near Kadesh, where was fought a battle renowned in the ancient annals of the East (*c.* 1290). The result, however, was not decisive. Rameses himself was at one time nearly surrounded and captured, but the numbers of the Hittite host were probably counteracted by the superior experience and unity of the Egyptians. By swift and resolute tactics Rameses managed to extricate himself, and finally the

most effective portion of the Hittite army was driven from the field. They were not, however, pursued, and the losses sustained by the Egyptians induced them to grant a truce. The result of this inconclusive conflict was in the end disastrous to the Hittites, who lost some of their chief leaders and the support of their Syrian allies. Mutallu, who had now succeeded his father, made efforts to retrieve the position with only partial success, and died whilst still at enmity with Egypt, *c.* 1280.¹

He was succeeded by his brother Hattusil II, who appears to have been a resolute and politic prince. During a reign of about twenty-five years (*c.* 1280-1255) he restored to some extent the prestige of the Hittite kingdom. Rameses was satisfied to maintain his hold on Southern Syria, and after some years (*c.* 1271) a solemn treaty of alliance, offensive and defensive, was concluded, with much ceremony and religious sanction, between him and Hattusil.

The period of tranquillity (*c.* 1271-1200) which ensued was favourable to the prosperity of the Hittite dominions. Sakje-Geuzi, Sinjerli, Hamath, Aleppo, and Karchemish in Northern Syria; Marash and Komani in the mountainous regions of Taurus and Anti-Taurus, and Malatia near the Upper Euphrates all increased in importance and advanced in culture. It seems probable that to this



HITTITE ROCK RELIEF AT
KARABEL
(A. H. Sayce.)

¹ Hall, "N. E.," pp. 362-3.

period must be assigned the famous rock-reliefs at the hypethral sanctuary of Iasily Kaya, near Boghaz-Keui, as well as those at Giaour Kalesi, which lay on the main road from Pteria to the west. The single figure of the Hittite war-god at Karabel in Lycia belongs to the same phase of art and may, with another similar figure near it, which has fallen from its original place, be a monument of some military expedition to the western regions of Asia Minor.

Hattusil was duly succeeded by his son and grandson, under whom the Hittites maintained some ascendancy in Western Asia and remained on peaceful terms with neighbouring states. There is a record of a Hittite king, probably Dudkhalla, the son of Hattusil II, having visited Egypt in 1258 B.C., a circumstance which cannot have been without some effect on his appreciation of art, and which was probably reflected in the general culture of his subjects.

But about 1200 B.C. occurred one of those sudden and unexpected upheavals which characterize the early history of nations, in the shape of an irruption of an alien race from the north-west. They are known in ancient records as Muski, and are generally assumed to be akin to the race which some three centuries later invaded Asia from the south-east of Europe, and eventually settling in the centre of Asia Minor became known as Phrygians. These Muski appear to have penetrated as far as the Assyrian frontier, and on their way to have captured or sacked the Hittite metropolis at Pteria. With this event the Hittites disappear as a dominant power in Asia Minor, and the invaders, for a time, took their place. But they had the growing power and ambition of the Assyrians to contend with, and after an intermittent struggle which lasted for fifty years, the Assyrian king, Tiglath Pileser I (c. 1110) drove them from the smaller settlements or principalities on the west of

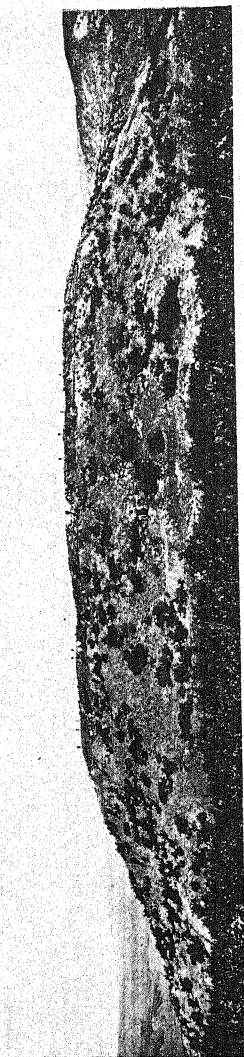
the Euphrates, and stayed any further aggression.¹ In these conflicts the Hittite population, who were no doubt enlisted against the Assyrians, were the chief sufferers, but there is no evidence that they were permanently dispossessed, and the general course of their history indicates that the Assyrians withdrew from the west side of the Euphrates, and that the Hittites obtained for a time a fresh period of prosperity, if not of absolute independence. The rebuilding of the ruined palace at Boghaz-Keui and the reinstatement of the fortifications and gates, which are assigned to this period, may be regarded as evidence that some local independence was regained in the centre of Asia Minor, but the real focus of Hittite influence lay for the future in the south-east of the former empire.² The city of Karchemish seems, since the first inroad of Tiglath Pileser, to have escaped further disaster. It is probable that it had always been the chief town of a semi-independent state, governed by kings of its own, and after the fall of the dominant dynasty it became the chief seat of what survived of Hittite culture. The remains of the city which have been partially excavated are evidently monuments of a prosperous and highly cultivated people, and though there is evidence in later work of Assyrian influence, it retains a peculiar character testifying to a genius for art, which so far as originality is concerned, compares favourably with that of the Assyrians.

This interval of comparative prosperity coincides with a temporary decline in the power of Assyria, and seems to have lasted for about 125 years (c. 1010-885 B.C.). But the Assyrians, under Ashurnazirpal III and

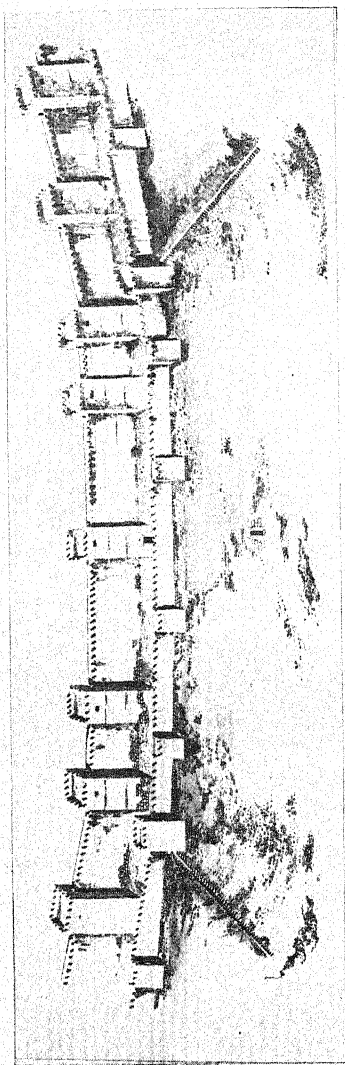
¹ Clay cylinders in the British Museum record the defeat by Tiglath Pileser I of the "Mushku," and others on the north-west of Assyria, and of 4,000 warriors of the "Khatti," and the conquest of Karchemish (see "B.M. Guide to Babylonian Antiquities," p. 154-5).

² See Garstang, p. 372.

Shalmaneser II, again became violently aggressive. The latter made a determined raid on the Hittite lands, penetrating as far as Tarsus in Cilicia, and afterwards defeating a retaliatory attack which was made by a combination of Hittite states. Further aggressions, however, were stopped by another power, which now comes upon the historic scene, namely the hardy and warlike race of mountaineers from Urartu (Ararat) and the neighbourhood of Lake Van, who not only invaded Assyria, but even crossed the Upper Euphrates and for a time held Hittite territories in subjection. The history of this part of Asia for a large part of the ninth and eighth centuries B.C. is obscure. It apparently consisted of a long-continued struggle for North Syria between Assyria and the Vannic kings, under whom some of the Hittites served, and though a few states strove to preserve a nominal independence, they became politically of no account. The final dissolution of the once extensive Hittite empire was accelerated by the invasion of the Phrygians who are supposed—though definite evidence is wanting—to have entered Asia from Europe by way of the Hellespont. In 877 Karchemish was taken by Ashurnazirpal III and was made tributary, though governed by native rulers for about 160 years longer. In 743 Tiglath Pileser IV defeated the King of Urartu, and one by one the Hittite states who still held out gave in their submission. At length, in 718 B.C., Karchemish surrendered to the Assyrian king Sargon. Marash, the last Hittite stronghold, fell in 709 B.C.



Present aspect.



Suggested reconstruction by Dr. Puchstein of the southern defences, and the gate known as Yer-Kapou, with the subterranean entrance.

BOGHAZ-KEUI: THE ACROPOLIS FROM THE SOUTH
(Puchstein.)

CHAPTER VI

HITTITE ARCHITECTURE

OWING to the illegibility of the pictographic inscriptions which are found on many of the Hittite monuments it is difficult to correlate them with the history which has been outlined in the foregoing chapter. Of the earliest dwellings of this widely spread race it is impossible to give any account, as no vestiges of them have yet been noted even in sites such as Sakje-Geuzi, which have been inhabited since neolithic times (*ante*, p. 56). Their methods no doubt varied in accordance with peculiarities of soil and situation, but it is evident from all the sites which have been explored, that unlike the Chaldaeans, whose architecture was based almost exclusively on the use of hardened plastic material, the Hittites were accustomed from the first to employ stone constructively as well as for monumental and religious purposes.

Some of the earliest masonry as yet met with appears to be that found in the ramparts and walls on the higher portions or acropolis of their chief city at Boghaz-Keui. They date possibly from the early part of the second millennium B.C., or even earlier, when the settlement was probably that of a sept or clan of the indigenous Hatti. On the south side, which had something of the character of an elevated tableland, the site was protected by a natural ridge strengthened artificially, but towards the north the ground fell rapidly to a plain

which lay 870 feet below the summit. On this side the higher ground was protected by several craggy eminences which were further strengthened by stone walls. The east and west sides were defended by small but rapid streams, which formed a junction on the low ground on the north-west. That on the east flowed through a deep ravine with precipitous sides, one of which was crowned by the largest of the fortified rocks known as Beuyuk Kaleh.¹

The fortified ridge or rampart which protected the south side of the high ground formed a roughly semi-circular line, the diameter or chord of which was about three-quarters of a mile from east to west. As a much stronger and more elaborate system of fortification was adopted at a later date it is difficult to ascertain the nature of the original work. But the character of the earlier masonry is shown in the strongly buttressed wall which protects the north side of Beuyuk Kaleh.² It is built of ponderous stones mostly squared, but in some cases polygonal, which in the lowest courses are from 2 to 3 feet in height. This use of polygonal blocks fitted with some neatness amidst rectangular courses is seen in other walls of less massive construction. The central eminence, known as Sari Kaleh, had less need of artificial protection as its north side is precipitous, but towards the west side there is a smaller rock known as Yenije Kaleh, surmounted by a rectangular fortification, built in more regular courses of squared stone (see p. 54).

It is probable that this hill-town had already emerged from an isolated condition, and been extended in area before the time of Hattusil I, and that under his son,

¹ The romantic and impressive character of this ravine is described by Van Lennep, vol. ii, pp. 106-109. Boghaz-Keui means "The Village of the Gorge."

² Garstang, pp. 205-6.

Subbiluliuma, it had become the capital of an extensive confederacy of Hittite clans.

At the village of Eyuk, about 20 miles north of Boghaz-Keui, there is a small fortified hill on which are found remains of ancient walls of rough and partly polygonal masonry; and remarkable sculptures of later date, which attracted the attention of various travellers in the course of the last century, showed that it shared in the rise of its more important neighbour.¹

Similar fortified sites, undoubtedly Hittite, and probably as ancient, are widely distributed in Asia Minor. At Giaour Kalesi, some distance westward of Boghaz-Keui, is a rocky eminence dominating a narrow pass on what must have been one of the main trade routes from the interior of Asia to the Mediterranean. It is crowned by a fortification enclosing a rectangular area of 112 by 54 feet, the masonry of which resembles that of Yenije Kaleh. The wall is supported at a lower level by a revetment of larger stones pentagonal in form. Its Hittite character is proved by sculptured reliefs near the entrance.

At Karaburna on the Halys, about 90 miles due south of Boghaz-Keui, there is a fortification on a steep hill about 380 feet high. Round the summit runs a wall of sheer rock broken only on the west and north, where there are remains of rough stone walling. On the east side, below what was apparently the gateway, was an underground passage, now blocked up, which may have led to a well.² On the left side of the gate is an inscription in Hebrew characters.

Still farther south, at the limit of the central tableland,

¹ See below, p. 89.

² See description by Mr. J. G. C. Anderson in *J.H.S.*, vol. xxi, p. 324, who mentions similar passages at Amasia and Karalar in Galatia. A more remarkable subterranean tunnel exists at Boghaz-Keui (see below, p. 75).

is Kara Dagh (the black mountain) an outlying spur of the Taurus 7,000 feet above sea level, and at least 3,000 feet above the plain. On its summit are some Hittite works and inscriptions which indicate that it was a sanctuary or "high-place." A few miles to the north-west of it there is a rocky hill known as Kizil Dagh, rising abruptly from the plain to a height of nearly 400 feet, the summit of which is fortified. Near this entrance on the west is a long Hittite inscription.¹



ARCHAIC SCULPTURE FROM THE
SOUTH TOWN-GATE AT SINJERLI

(Von Luschan.)

At Fraktin, farther east, where Anti-Taurus hems in the central plain, there is a series of rock-sculptures in relief of a very primitive character. They appear to represent scenes of religious ceremonial and suggest that here was a sanctuary of early date.

A more remote Hittite site is found at Malatia, near the Upper Euphrates, which was probably always the seat of an independent government.

Here some of the sculptured reliefs, undoubtedly Hittite, have a certain crudity of character which distinguishes them from others that are obviously later, and associates them with the earlier relics of the Hittite population. A similar antiquity is assigned to a few of those at Sinjerli in Syria.² Whether the figure on mount Sipylus, near the Aegean coast,

¹ Garstang (pp. 129, 179, 180) notices that in these inscriptions the signs taken to be the names of kings are surmounted by a winged disk or similar emblem,

² Meyer, § 466.

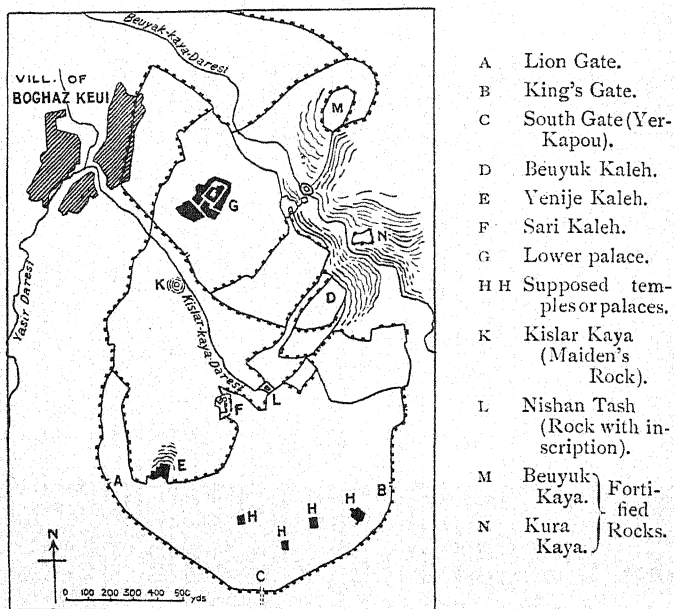
mistakenly called Niobe, which was already celebrated in classical literature,¹ may be assigned to this early epoch is uncertain. The fact that all Hittite sculptures appear to be cultural in character, and that this almost certainly represents the primeval mother-goddess unaccompanied by any of the later divinities to which her cult gave rise, seems in favour of its early date.

The process by which the site of the Hittite capital emerged from its early phase as a highland fastness, and became the chief town of an extensive confederation can only be inferred. A hoard of inscribed tablets discovered in the ruins of a building on Beuyuk Kaleh,² the date of which must be somewhere about the fourteenth century B.C., shows that it was by that time a central seat of power, and implies that there was a royal palace at that spot. This will account for a wall which runs from that fortified point in a north-westerly direction to join the town wall on the west. It follows, and is approximately parallel to, the course of the Kislar Kaya rivulet, which rises in the centre of the enclosed space and forms a junction with the stream on the west, in the modern village. But the construction, later, of a much larger palace (though by some it is regarded as a temple), the foundations of which remain on the north of the Kislar Kaya rock, must have necessitated a further extension of the enclosed area; and there are remains of walls, forming a salient on the north, which marks the limit ultimately attained by the fortified city, and shows that it had an axial length from south to north of about a mile and a quarter. But there is reason to suppose that the first building on the site was wholly or partially destroyed

¹ See Soph., "Antigone," 823 *sq.* The identification is uncertain; but the figure is undoubtedly that referred to by Pausanias (III, xxii, 4) as the mother of the gods.

² Puchstein, p. 25. Another collection was found in the magazines on the east side of the lower palace (*ibid.*, p. 123).

by fire and afterwards rebuilt;¹ so that the greater part of the remains must have been later than the Muski invasions (c. 1200 B.C.). The disturbed condition which prevailed between the death of Subbiluliuma and the



RESTORED PLAN OF HATTI-TOWN

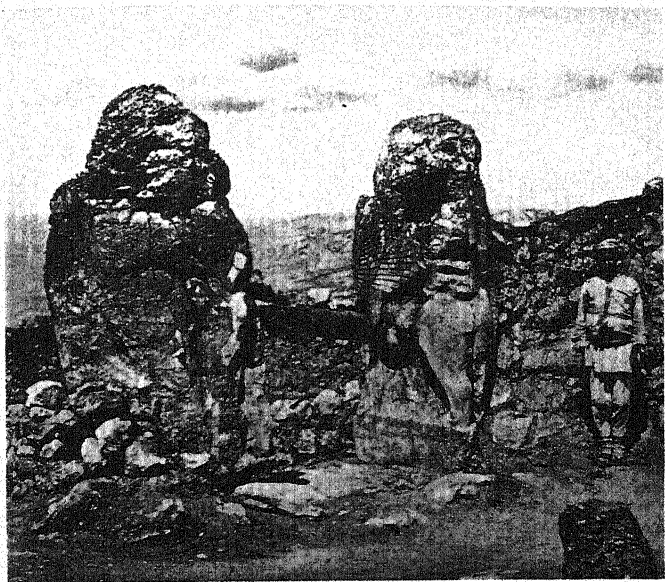
From "Boghasköi. Die Bauwerke," von Otto Puchstein, H. Kohl u D. Krencker (D.O.G.).

treaty between Hattusil II and Rameses cannot have been favourable to the progress of art, and it seems likely that the first lower palace was built after the conclusion of the treaty (1271 B.C.) had given peace to the land. To this period also may reasonably be assigned the more

¹ On this doubtful question see Puchstein, pp. 124-126.

scientific fortification of the upper town or acropolis, by strengthening the southern rampart (see p. 66).

It cannot be doubted that the defences of a city which retained considerable civic importance until the



WINGED SPHINXES FROM THE SOUTH GATE—YER-KAPOU—
LOOKING SOUTHWARDS

(Puchstein.)

middle of the sixth century B.C. must have been frequently renovated, and it may not be possible to say when the upper wall, with its innumerable buttresses or solid turrets at short intervals, was first erected. In this respect it is a form of military architecture which prevailed throughout Western Asia, and even in Egypt,

from a remote period. Such turretted walls are found both in early Chaldaean and in late Assyrian buildings, and throughout Asia Minor from Troy to Sinjerli. It is



RELIEF ON THE INNER SIDE OF THE
SO-CALLED KING'S GATE (p. 77)

(Puchstein.)

in the gateways that features are found which seem to be peculiarly Hittite.

At the extreme south of the town-wall, at a position known as Yer-Kapou, was a gateway surmounted, it is supposed, by a tower (p. 66). Though it was apparently only accessible on foot, it was not without some distinctive features. It consisted of an outer and an inner doorway; the former had on each side a sphinx-like figure, but they are so dilapidated that their features and complete form are now lost. The inner doorway also had two sphinxes, looking towards the outer gate (p. 73); these also are much dilapidated, but

enough remains of that on the west side to show that they were human-headed and winged, and that whilst they resemble in general form the winged bulls and lions familiar in Assyrian portals, they have been carved with some skill and seem to represent a more refined phase of art.¹

¹ The date of this gateway is unfortunately a matter of doubt.

As the natural ridge on which the wall at this part stands is of considerable height, the door was only approached by means of two narrow stairways which slope up diagonally from the east and west, and, without (see p. 66) meeting, converge towards a platform outside the door. Another curious feature is that below the doorway there is another means of access to the interior of the town by a subterranean passage which penetrates the natural ridge on which the upper wall is built.¹ Though lined with heavy stones, it can hardly be described as vaulted, for the sides slope upwards till they meet, giving the passage a triangular section. The great length and narrowness of the passage allowed of its being easily defended, whilst it might be used as a sally port to repulse from the rear any attack from the south. The more important entrances to this higher portion of the city were two fortified gates, one on the east side and the other nearly opposite on the west, the distance between the two in a straight line being about three-quarters of a mile. That on the west is known as the Lion gate from the two figures in high relief showing the head and forepart of a lion on the outer side of each gate-post. The other, known as the King's gate, had no guardian figures on the outer gate-posts, but on

Hitherto it has been usual to attribute any resemblances to Assyrian art in Hittite work to the influence of Assyria, but much may be said for the opposite view, viz., that the peculiarities which differentiate Assyrian architecture from Chaldaean were derived through Syria from the older Hittite work. It is true that in the latest days of Hittite culture at Karchemish there is seen in many of the carved reliefs an obvious imitation of contemporary Assyrian work—combined, however, with a feeling which is wholly non-Assyrian—but this blending of two styles under the personal influence of Assyrian kings can hardly be alleged in the case of the remote city of the Hatti, which had probably at the time the gate was built recovered some sort of independence. The subject is discussed in chapter ix.

¹ The similar feature at Karaburna and elsewhere has already been noticed. See *ante*, p. 69.



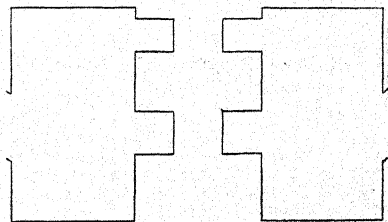
The gate-posts from the outside.



Inner side of the above.

BOGHAZ-KEUI: THE LION GATE
(Puchstein.)

the interior on the left-hand side is a figure entirely in relief of an armed Hittite warrior.¹ The plan of these gateways is typical of others in various sites and seems characteristic of, if not peculiar to, Hittite military architecture. In that with the lion guardians the actual doorway is set back about 13 feet from the outer face of the wall, which is returned at each side, leaving a rectangular space about 25 feet wide in front of the gate, in which an attacking enemy could obviously be enfiladed. The massive gate-posts project 6 feet from the side walls, so that the actual opening for the gate is only 13 feet wide. Behind this was another space about 25 feet square on the farther side of which a second gate with heavy side posts had to be forced before the fortress could be entered. The depth of the whole work from front to back, about 40 feet, gives the total length of the



TYPICAL GROUND PLAN OF A HITTITE
GATEWAY

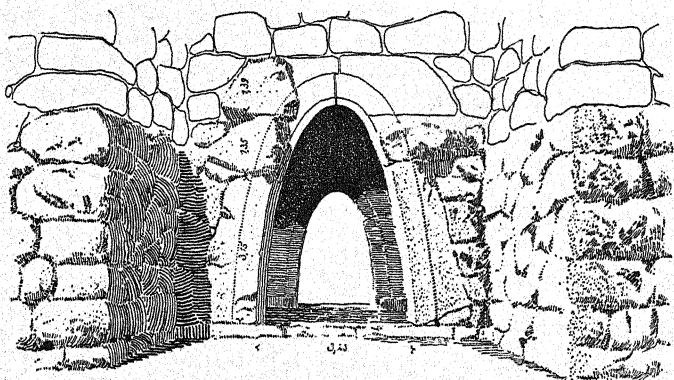
(From the citadel gate at Sinjerli.)

walls from which assailants would be exposed to side attacks. The form of the upper parts of both gates and walls is to a large extent a matter of conjecture. It is probable that the projecting part of the wall at the sides of the outer gate were the bases of towers which, with the walls and the numerous turrets which strengthened them at intervals, may have been finished at the top with crenellations such as appear on Assyrian representations. The doorways themselves have been sup-

¹ See p. 74. There is a curious difference of opinion as to the sex of this warrior. Though at first regarded as a king it is now generally supposed that the figure represents an Amazon.



THE SO-CALLED KING'S GATE—EXTERIOR
(Puchstein.)



SUGGESTED RECONSTRUCTION OF THE ABOVE BY DR. PUCHSTEIN

posed alternatively to have had a horizontal lintel, or to have been arched on the cantilever principle.¹ The curved form of the side posts, however, suggests another alternative, namely, that other curved stones were combined to form a roughly elliptic arch as shown in the restoration by the late Dr. Puchstein.

The same plan is found in the palace gate at the neighbouring settlement of Eyuk, and its wide prevalence is shown by its occurrence at Sinjerli and elsewhere in Northern Syria.

The ground plan of Hittite palaces does not differ materially from that of similar buildings of earlier date found in Mesopotamia, which was probably derived from a primitive type prevailing throughout Mesopotamia, Anatolia, and the Aegean. An open courtyard, surrounded by a somewhat complicated arrangement of rooms, is a feature common to all.² In the plan of the lower palace or temple at Boghaz-Keui, which is the most important Hittite building of which the remains have been completely disinterred, the arrangement of cellars or magazines in the basement recalls a similar feature at Knossos, though if the Hittite palace was reconstructed after the Muski invasion it must have been at least three centuries later in date than the Cretan magazines in question.

The foundations of the lower palace at Boghaz-Keui consist of rectangular stone blocks of sandstone of great size, averaging about 8 feet in length, and 4 in thickness.³ It is impossible to say definitely how the walls were carried up, but a series of small holes in the upper surface

¹ Garstang, p. 204.

² This does not apply to Troy, where the Mycenaean form of palace, with an independent megaron, is found. See "Hellenic Architecture," pp. 6, 38.

³ Garstang, p. 207. Perrot and Chipiez (t. iv, p. 608) mention some as being 5 to 6 mètres long and 2 in width.

of many of the stones may indicate the use of a timber framework attached by bolts which would probably be used in combination with fillings of crude brick; a usual method of construction when small material was employed.¹ The total length of the building was about 211 feet with a width of 138 feet. The entrance was in the centre of the south end and consisted of a



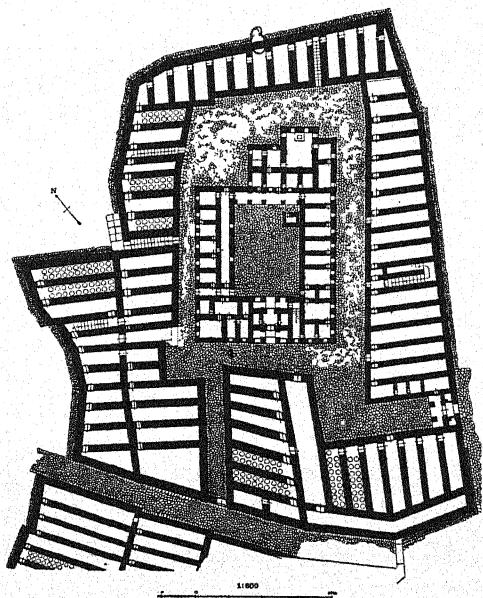
FOUNDATION, SHOWING THE HOLES
FOR UPPER WALLS
(Puchstein.)

triple opening as shown by two rectangular bases between the ends of the main wall. This led into a narrow porch, in the back wall of which a single opening gave access between two small lateral chambers to a central court, measuring about 88 by 65 feet, paved with rough stones. On the west side of the court was a long

corridor with six chambers behind it, and on the east a series of larger chambers about 35 feet in depth, below

¹ Similar holes are found in masonry both at Sinjerli and Karchemish, and their object is discussed, but rather inconclusively, by Mr. C. L. Woolley in his report on the excavations at the latter site for the B.M. (Part II, p. 147 *sq.*). At Sinjerli Dr. Koldewey regarded them as holes for metal bolts to secure a timber course on which the upper brickwork was laid, but there is no evidence of this at Karchemish. Mr. Woolley seems to think that they may have helped to support an external panelling of cedar wood, or that they may have been used in levering the stones into position. It seems possible from his observations that they may have served as keys to retain in position a course of hard-drying cement which formed a level bed for the upper brickwork.

one of which was found a hoard of clay tablets inscribed in cuneiform characters. The north side of the court was enclosed by a portico or colonnade supported by three pillars. The buildings behind this were, no

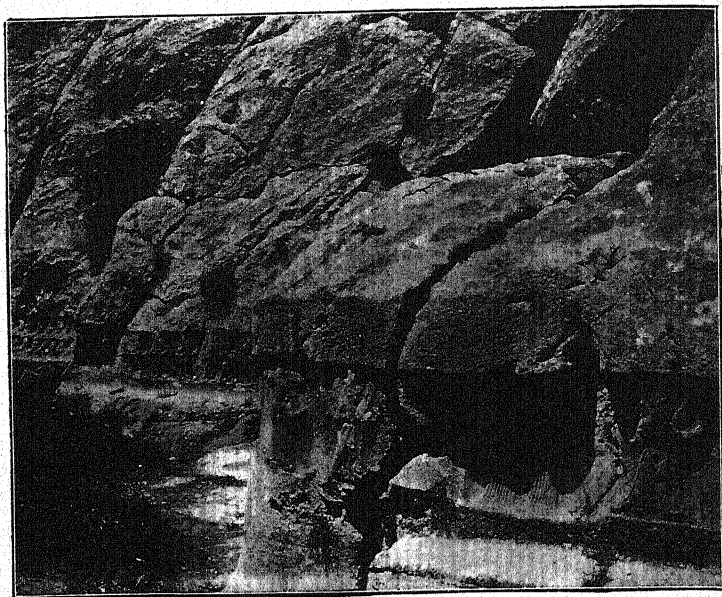


RECONSTRUCTED GROUND PLAN OF THE LOWER PALACE
OR TEMPLE WITH THE SURROUNDING MAGAZINES

(Puchstein.)

doubt, the more private section of the whole edifice. They have a total depth, including the portico, of about 76 feet, but they extend laterally to only about two-thirds of the width of the whole. They include the largest single room, measuring 34 by 26 feet. Puchstein regards this as the sanctuary of the temple, and a curious

depression in the floor at the north end, about 2 feet square, as the socket for the statue of the goddess; but it seems unlikely that the largest room should be devoted to this purpose, and it may with equal probability be supposed to be the megaron or throne-room of the



IASILY KAYA : THE LARGER GROTTO FROM WITHIN
(Garstang.)

palace. The pillars and some of the walls of this part of the building are of granite, instead of sandstone like the rest; all the stonework is much damaged by fire.

On each side of the building were smaller doorways giving access to the interior. That on the east side was divided in the centre by a wall, and led on one side into

an isolated chamber, and on the other into the north colonnade. The doorway on the south-west was also divided by means of a central pier after the manner of Cretan doorways. There are traces of pivots on which the wooden doors turned. In the north-east corner of the central court are the dilapidated remains of a cell about $16\frac{1}{2}$ feet square, with a door at the back or north side. The whole building was surrounded by a paved passage or street, on the farther side of which were numerous parallel cells which have the appearance of magazines, and which also seem to imply some relation with Cretan architecture. All these buildings stood on an artificially levelled platform which, owing to the fall of the ground towards the north, is supported by a lengthy slope revetted with stone at its northern extremity. The edge of the higher platform is also supported by a stepped revetment, the upper courses of which are strengthened by joggling the stones, an expedient which indicates a somewhat advanced stage in the art of masonry.¹

It is impossible to say in what manner or to what extent the walls were decorated. There are no signs of continuous carved reliefs such as are found at the gateways of Eyuk, Sinjerli, Sakje-Geuzi, and elsewhere. The remains of two pairs of sculptured lion-heads, which formed the ends of a rectangular water-tank, were found close to the ruins and may have formed part of the internal fittings. The interior walls were probably decorated with painted designs. But the whole city has revealed little in the shape of sculpture, for nothing that is recognizable has been found beyond the lions just mentioned, those at the Lion gate, the sphinxes at Yer-Kapou, the figure near the so-called King's gate, and two cubical blocks of granite found on the slope some distance above the palace, each of which shows on one

¹ This description is derived partly from Puchstein and partly from Garstang.

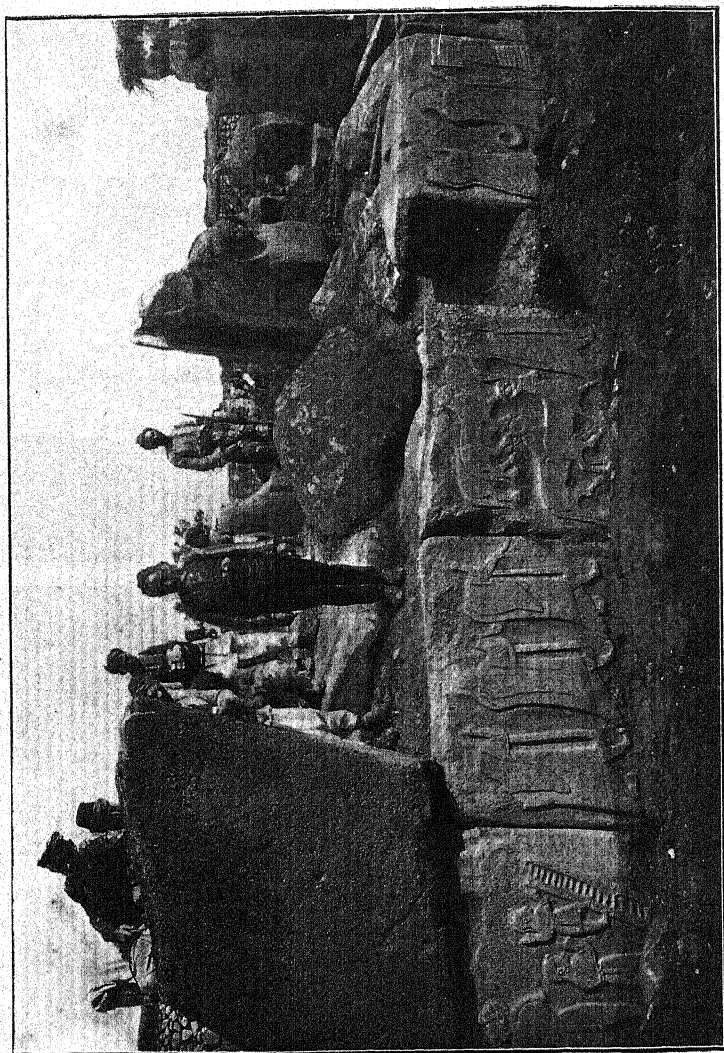
The god with sword. Chief god. Mother goddess. Son. Twin goddesses.



IASILI KAYA: THE CENTRAL SUBJECT AT THE INNER END
(Garstang.) Note the human and animal supporters.

face a relief of a priest-like figure before an altar, which seem to have served as bases for some religious emblem. It is possible that, as Professor Garstang suggests (p. 210), the absence of sculpture may indicate a date for the palace anterior to that at which the lion became, as it did in later work, a frequent motive, in which case he would regard the tank and the Lion gate as additions later than 1000 B.C.; but the absence of mural reliefs may also be attributable to the proximity of the remarkable series of rock sculptures known as Iasily Kaya.

These are to be seen on the walls of two recesses or narrow glens in a rocky tract about two miles eastward of Boghaz-Keui. The larger recess opens towards the south and forms a *cul de sac* with very irregular sides terminating in a rock with a flat face which forms the central point of the whole composition. The vertical walls on both sides display a series of rough panels, mostly about 3 feet high—though a few are much higher—and two or three yards in length, formed by dressing off the background and leaving in relief a succession of figures which obviously have a symbolic and religious significance (see p. 82). On the left hand the figures, 45 in number, are, with few exceptions, male; on the right hand, numbering 22, they are chiefly female; and they are represented on each side as marching in procession towards the central goal at the north end, where the leaders, respectively a male and female deity, appear to meet in greeting. The importance of these central figures is emphasized by their superior size, for they are about 7 feet in height; and the figure on the left is represented as standing on the shoulders of two smaller figures, whilst the goddess on the right stands on the back of a panther. To describe them in detail is unnecessary, as this has already been done by Professor Garstang (pp. 211-241), with many photographic illus-



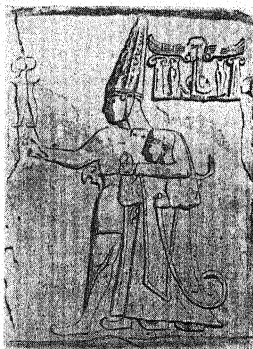
EYUK: CARVED SLABS ON THE LEFT FRONTAGE OF THE PALACE GATEWAY

The Sphinx on the left gate-post is seen. (Gatslang.)

trations. There is one, however, the last on the right-hand side, which has a special architectural interest. It seems to be distinct from the procession which precedes it, being 8 feet in height, and so placed that it faces directly the central point. It represents a priest or king—or probably both—holding in his hand an emblematic plaque or model representing a priest-like figure standing between two fluted pillars with voluted capitals showing a primitive form of the later Ionic column.¹ A similar emblem with the two columns occurs on a relief in the smaller recess where the figures, though much fewer in number, are in some cases better preserved owing to their having been covered by accumulated soil.

It is perhaps not unreasonable to suppose that the nearness of this forest sanctuary to Hattitown, and the probability that its sovereign lords fulfilled some priestly function within the sacred precincts, may have allowed them to dispense, at their gates, with the symbolic imagery designed to give consecration and protection to other towns less closely associated with the unseen powers whom they worshipped.

There is no such lack of ornament at the neighbouring settlement of Eyuk. Here are the remains of a gateway which in plan is practically identical with those at Boghaz-Keui, though the dimensions are slightly less.



RELIEF OF KING WITH EM-
BLEM FROM SMALLER
RECESS AT IASILY KAYA
(A. H. Sayce.)

¹ The architectural significance of this is dealt with in "Hellenic Architecture," p. 140.

From the latest excavations¹ it appears that the two projecting walls were parts of the bases of two extra mural towers which must have given the entrance something of the aspect of a Roman or mediaeval gateway.² As there is no indication of a door in these basements, it is evident that the vacant space must have been entered from above by means of a ladder, as appears to have been the case in the mural towers of Troy II. The gate-posts, in place of the lions of Boghaz-Keui, have on each the front of a sphinx carved in high relief, showing a female head on the body of a quadruped probably intended for a lion. The head-dress of the figures has sufficient resemblance to a heavy wig to suggest some Egyptian influence.³ But the chief difference between the gates at Eyuk and Boghaz-Keui consists in the series of reliefs which, in the former, decorate the large stone blocks forming the lower course of the frontage and the interior sides of the entrance. They have a general resemblance in style to the work at Iasily Kaya, and have obviously some religious significance, but they are less distinctly ritual in character and are more varied in subject. The left-hand corner-stone represents the image of a bull standing upon a pedestal and facing to the left; the next represents two figures, apparently a king and queen, engaged in worship. Other stones show priests in procession, the former of whom leads a goat and sheep to sacrifice. Another represents masons at work, one of whom is standing on a ladder, and on another appear three musicians, one of whom plays a very well-formed guitar. The corner-stone on the right-hand side of the entrance shows a

¹ Macridy Bey, "La porte des Sphinx" (*Mitt. der Vorderasiat. Gesellschaft*).

² Garstang, p. 248.

³ Lion sphinxes are also found at Sakje-Geuzi (Garstang, p. 310), in which the head and face are distinctly Egyptian in character.

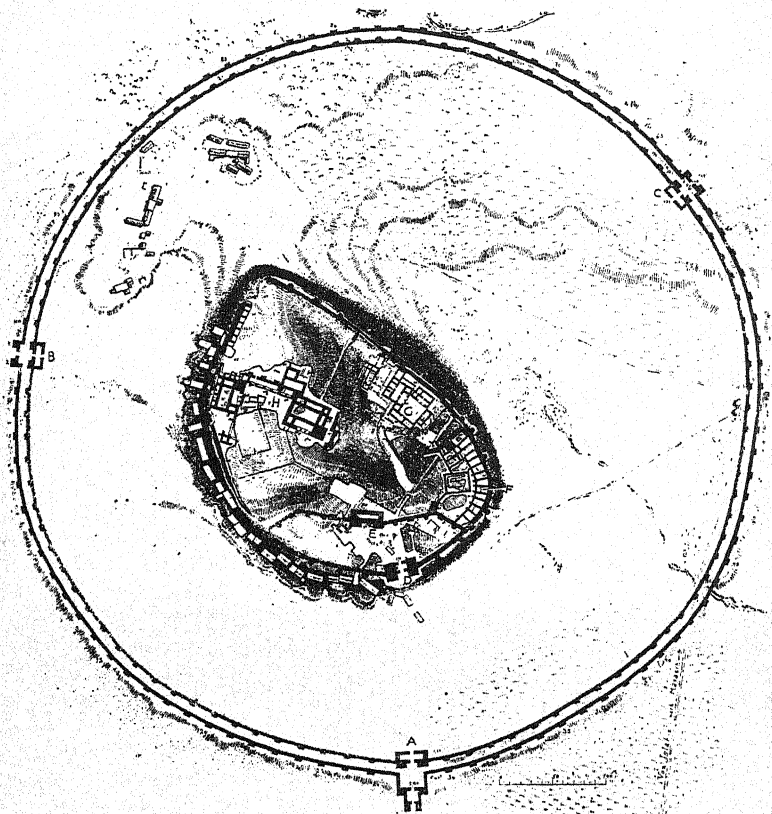
seated figure—no doubt representing the female divinity—facing towards the right, whilst three figures on the next appear to be doing homage to her. More figures followed, but the remainder of the carvings on this side are very imperfect. In addition to these front reliefs others cover the lower courses of the side-walls and returns in the approach to the gate. One on the side of the right-hand sphinx shows a double-headed eagle supporting a priestly or royal figure, the upper part of which has disappeared. The same symbol, upholding two figures, is seen on one of the reliefs at Iasily Kaya.

Closely in front of this gateway were found what appear to be the remains of an earlier wall which deviates by a small angle from the later alinement. The masonry of this is roughly polygonal, corresponding with early work at Boghaz-Keui. On some of the unplaced stones are reliefs representing hunting scenes and shooting at boar and deer with bow and arrow, which appear to illustrate an earlier phase of art than those in the upper wall. Professor Garstang's conclusion is that there was an earlier building, probably destroyed in the Muski invasion, and rebuilt like the lower palace at Boghaz-Keui on somewhat different lines.¹

Though the region enclosed by the northward bend of the river Halys seems to have been the centre of Hittite power in its prime, there is little beyond these remains at Boghaz-Keui and Eyuk to give evidence of it. It shifted in later days to the south-east, and it is in Cilicia and Northern Syria that the further progress of architectural art is illustrated.

The apparent antiquity of some of the sculptured stones found at Sinjerli in Syria has already been mentioned (*ante*, p. 70). The German excavations there have done much to illustrate the development of Hittite

¹ Garstang, pp. 249, 252.

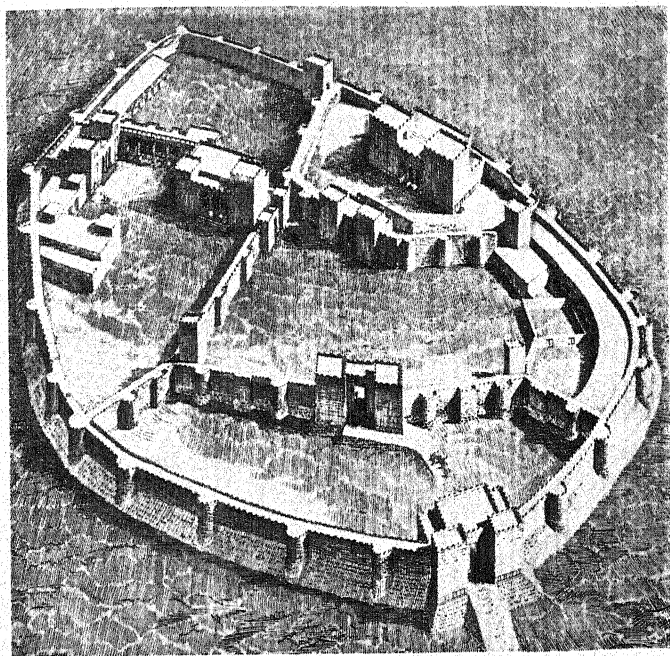


PLAN OF THE TOWN AND CITADEL OF SINJERLI—LATE PHASE

(Von Luschan.)

- | | | |
|-------------------------|-----------------------|-------------------------|
| A South town-gate. | D Citadel gate. | G Upper Palace with old |
| B West " " | E Gate in cross-wall. | palace on south-east. |
| C North-east town-gate. | F Casemates. | H Lower palace. |

art and architecture.¹ The site must have been continuously inhabited from an early period in the second millennium B.C., when it was probably merely a village



SINJERLI: RECONSTRUCTION OF THE CITADEL IN ITS LATEST PHASE
(Von Luschan.)

or small collection of huts on a low hill. As the houses increased in number they were crowded together with their unwindowed backs turned outward, forming of

¹ "Ausgrabungen in Sendschirli" (F. von Luschan), from which work, by the courtesy of the author and publishers the illustrations are reproduced.

themselves a defensive wall. As the population increased houses were built beyond the original limit, and by the fifteenth century the settlement had grown into a town surrounded by an extended wall, whilst the



SINJERLI: THE OLDEST RELIEFS—FROM THE SOUTH TOWN-GATE
(Von Luschan.)

hill became the acropolis with a defensive wall of its own.¹ By the eighth century B.C. it had become an important city with several palaces. It was surrounded by a double wall, probably crenellated, forming an almost exact circle and strengthened with 200 solid turrets.

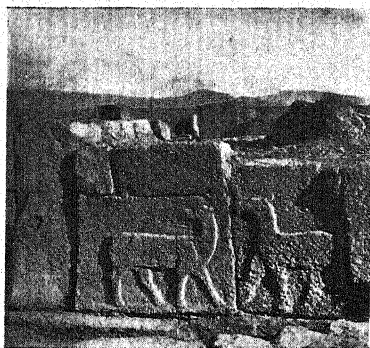
¹ The excavators assign this phase to the twelfth century B.C. See also Garstang, p. 273.

It is generally agreed that the most ancient sculptures are those at the southern gate of the city, but in that case they are apparently not in their original position.¹ They are rude and fantastic in character, showing figures of mixed form such as a human body with an eagle's head or a lion with a human head. Horse-riders are also represented in somewhat grotesque style, but with characteristics which are peculiar to Hittite art, such as the turned-up toes, the short tunic and conical cap, and the long lock of hair at the back of the head.

The main door of the citadel has the usual plan with some difference in the proportions. It is conjectured that in its original form it may date from the twelfth century B.C., but that it was repaired by Assyrian conquerors at a much later date. The town was used as an occasional residence by Esarhaddon (c. 681 B.C.), and there is a stele set up by him in the central space of the gateway. There is a long series of carved slabs skirting the sides and return walls of the interior. These panels amount to 32 in number, all of which are described by Professor Garstang with great minuteness.² They include male and female figures, and composite beings such as an eagle-headed man, a human-headed lion, another with a bird's head, a fine figure supposed to represent the Hittite storm-god wielding in one hand what may be a thunderbolt, and many others designed with varying degrees of merit. In all these, the human figures show characteristic details of Hittite costume, but in some of the subjects, such as that of a warrior in a chariot, or a winged lion with a human head, some Assyrian influence may be traced. There are a few reliefs on the exterior face of the gate, some of which seem to have been obliterated in ancient times. In addition to these mural decorations two pairs of lions

¹ E. Meyer (§ 466) considers them to be not later than 1500 B.C.

² Garstang, pp. 278-296.

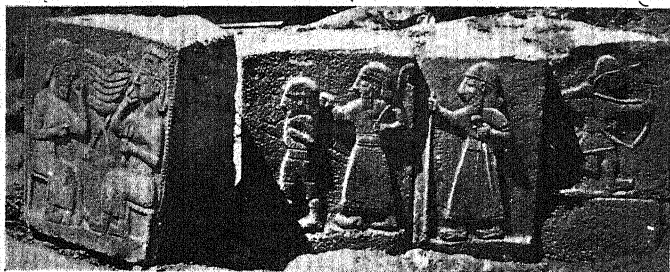


XXVIII XXIX

From the north face of the gate



VII

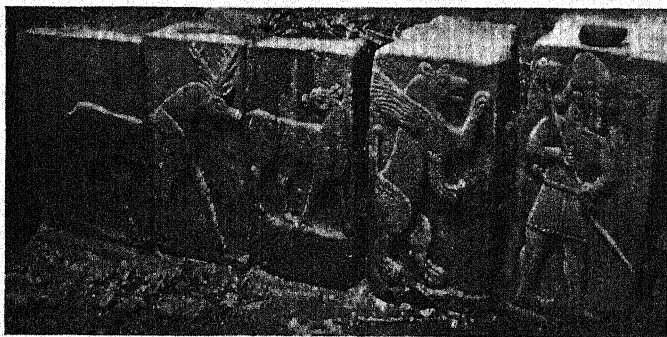


VIII

IX

X

XI



XII

XIII

XIV

XV

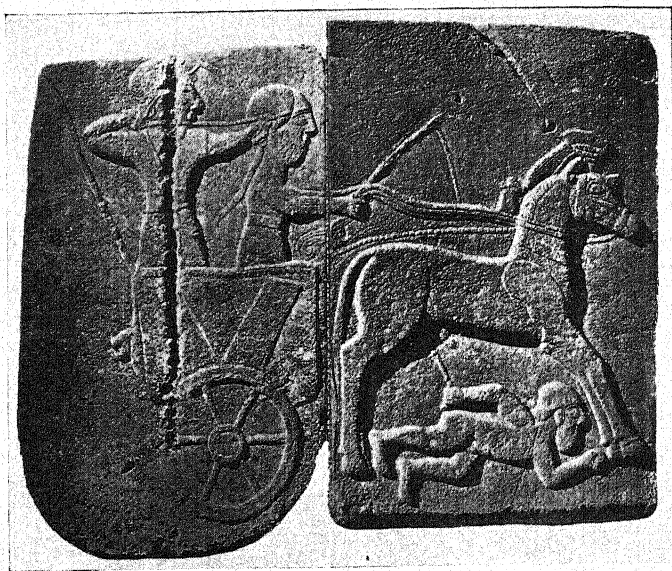
RELIEFS, IN LATER STYLE, FROM THE CITADEL GATE

(Von Luschan.)

VII-XV are from the west side of the central space. The numbers refer to Prof. Garstang's detailed description in "The Land of the Hittites," pp. 278 *sq.*

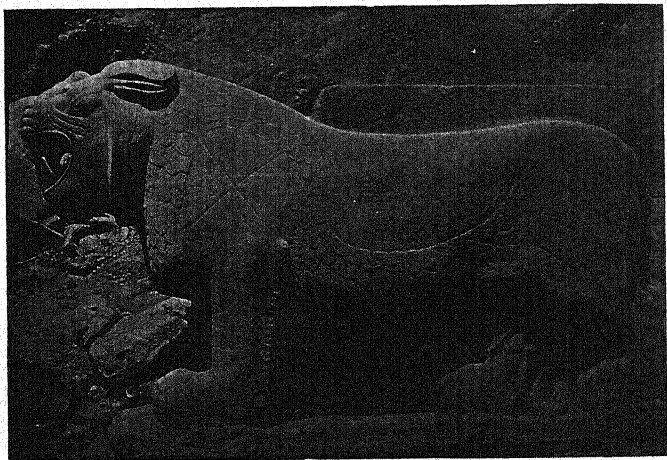
of large size, which must have served as lateral guardians to a gateway, were found, and in proximity to them two female busts in stone which served as a base or pedestal to a column or figure. The type of countenance and head-dress is similar to that of the sphinxes of Eyuk.

The architectural history of Sakje-Geuzi, which lies about 20 miles to the north-east of Sinjerli, appears to have been similar to that of the latter, though the site differs in comprising several mounds of which only one has been explored. This consists of a small rectangular eminence about 100 feet long by 80 feet wide, and was protected by an independent wall nearly 12 feet thick, the foundations of which were found 6 or 8 feet below the surface. The wall above the foundations was built of small stones faced with larger blocks, which were roughly fitted together without mortar in irregular courses, and was strengthened at intervals by external buttresses or solid turrets projecting about 3 feet from the wall. The exact position of the gateway is no longer to be traced. Within the enclosure are signs of successive periods of occupation, some of which covered the site of a palace, of which only the remains of the entrance porch have as yet been excavated. These are interesting inasmuch as they show *in situ* the lions which formed the anterior ends of the side-walls. The head and forepart of each of these was carved in the round, the bodies being represented in reliefs worked on the remaining portion of the stone. These were followed by other stones, continuing the side-walls, which were also carved in relief. The frontage walls also appear to have had a similar skirting of reliefs; but the upper part of the walls was probably carried up in crude brick, which has disappeared and left no trace. It must be noticed that this entrance differs in plan from the fortified gateways of Boghaz-Keui, Eyuk, and the south town-gate at Sinjerli. The contracted passage-way, with its sculptured jambs set back from the frontage line, the central space,



SINJERLI: RELIEF

From the gate of the citadel on the outer face on the west side.
(Von Luschan.)



SINJERLI: ONE OF A PAIR OF LIONS, ABOUT 8½ FEET LONG
From the gate of the cross wall within the citadel. (Von Luschan.)

and the inner gateway are absent. The distance between the guardian lions is 23 feet, and on the centre of the line between them is found a pedestal representing a pair of sphinxes bearing on their backs a circular disk which evidently supported a cylindrical column, or, as Professor Garstang suggests,¹ a columnar figure which helped to sustain the covering of what was evidently a state entrance to the palace. A certain similarity to a feature in Cretan palace-architecture, especially the grand portico at Phaestos, will be noticed. The edge of the circular disk on which the central support stood is curiously moulded with a band in the form of contiguous human fingers pointing upwards.² The faces of the sphinxes have, as in other cases which have been mentioned, a peculiar Egyptian character.

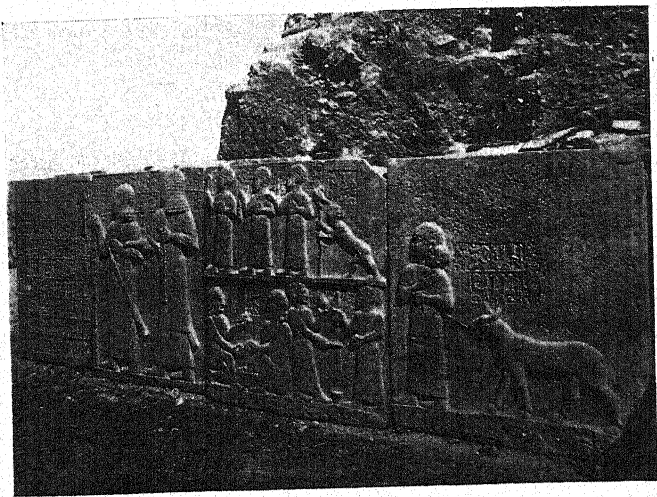
It is unnecessary to make any attempt to specify the numerous relics in the form of mural reliefs and carved or inscribed stones which give evidence of the wide extent of Hittite culture throughout Anatolia and Northern Syria. They are classified, described, and, in many cases, excellently illustrated in Professor Garstang's interesting work so far as they had been brought to light at the date (1910) of its publication.

The latest additions to our knowledge of this peculiar art are due to the excavations made for the British Museum on the site of Karchemish (Jerablus) in Northern Syria,³ which, from the eleventh century B.C., became the

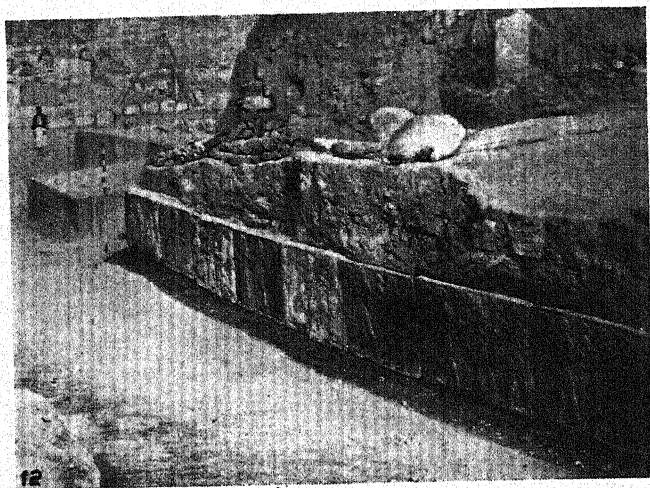
¹ Garstang, pp. 300, 301.

² This decorative motive, which occurs elsewhere, is probably Assyrian. Dr. Andrae discovered at Assur some very roughly modelled brackets which appear to represent human hands with the fingers bent upward. G. Smith figures one found at Nimrūd. See Andrae, p. 7, and G. Smith, pp. 76, 429.

³ "Carchemish: Report on the Excavations at Jerablus . . . on behalf of the British Museum . . . by C. L. Woolley and J. E. Lawrence" (1914 and 1921). The accompanying illustrations are inserted by permission of the Trustees.

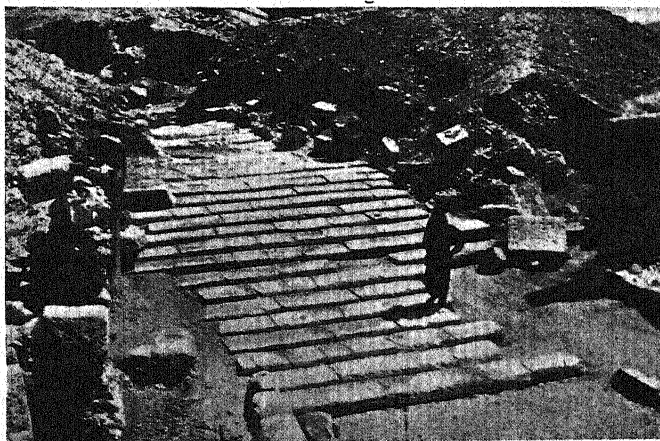


RELIEFS FROM AN INNER GATE, SUPPOSED TO REPRESENT A ROYAL FAMILY
(British Museum.)



KARCHEMISH: PANELS LINING THE ROAD FROM THE ABOVE GATE TO
THE CITADEL
(British Museum.)

most important centre of Hittite culture. The site, on the right bank of the Euphrates, comprises an inner town, the wall of which forms an oval, about half a mile in length, and one-third of a mile in width. It consisted originally of a wall built on a mound, with an external moat or ditch. The wall, except on the north and the river front, has to a large extent disappeared, but the



KARCHEMISH: LOWER PART OF THE STAIRWAY TO THE CITADEL
(British Museum.)

mound remains 50 or 60 feet in height. There was also an extensive inhabited area on the west and south, protected by an outer wall, rectilinear in plan, which appears to have been double, but is only traceable with difficulty. At the east side of the inner town, immediately overlooking the river, is a lofty double-topped eminence which formed the citadel or acropolis, and was approached by a stairway on the south-west. The summit was surrounded by a wall, and there was a fort,

erected by Sargon after the fall of the city, on the northern eminence. On the lower ground have been disinterred parts of several gateways in the west and south walls; one on the river front was the most ornate, and had on each flank a sculptured lion. The most remarkable and interesting feature revealed by these excavations is the long series of carved slabs which decorated the sides of doorways and even the side-walls of external approaches, including the sides of the stairs which led to the citadel, though in the latter case few are left *in situ*. In some cases the slabs are alternately of limestone and basalt, and appear to belong to the latest work of this class. Examples of earlier and ruder work are also found: but whilst there are details and conventions which stamp them all as Hittite, there is evidence of a new spirit of refinement and grace, which is unmatched by anything in Assyrian work and approaches in sentiment to the later art of classic Greece.

Though these recent excavations have not been published in sufficient detail to allow of methodical treatment here they will, no doubt, prove in time to be an important link, hitherto unrecognized, in the history of architectural development. For in spite of the evidence of an unavoidable subservience to the conquering power, the strongly marked characteristics of early Hittite art—which differs from that of any other race—prevail throughout the whole of the regions which they once dominated, and is as conspicuous at Karchemish as in sites more remote from Assyrian influence. It is true that the practice of carving stones in high relief was known to the Sumerian rulers of Chaldaea and may have been conveyed westward in prehistoric migrations of the people, but in the hands of the Hittites it assumed a special character. The grouping or posture of the persons represented, and the symbolic nature of their

attributes, show them to be in most cases cultural in character. The religious system of the Hittites is still in an inferential stage, and without the literary corroboration which the interpretation of their inscriptions may still supply. But many of the monuments lead to the presumption that it was like that which prevailed in the Aegean, originally based on the worship of a single supreme female deity; and though it was afterwards developed by the introduction of subordinate divinities, it had no original connexion with the complex mingling of Sumerian and Semitic local cults which is found in Mesopotamia in the earliest historic times.

Hittite art has a special rendering of its own. It is shown most obviously in the costume of persons represented. The high conical head-dresses are peculiar in form, and the hair appears in a pendent lock at the back of the neck. Warriors wear short tunics; only priests or kings are represented in long robes. The shoes have almost invariably turned-up toes, a singularity which is not found elsewhere in contemporary art. In many cases there is found an exuberance of fancy, as in the reliefs at Eyuk, rare in work technically so crude and primitive in drawing, which precludes the idea of its being merely imitative. There are certainly not wanting indications of Egyptian influence, as in the attitude of the figure at Karabel, with the shoulders fronting and the head in profile. The outstretched wings which cover the priest or king in an emblem which occurs twice at Iasily Kaya, and is found elsewhere,¹ are another instance. The sphinx is also found with features which inevitably suggest Egyptian prototypes. The rock-carved figure on Mount Sipylus, in its dilapidated condition, has a less obvious source. It might be compared with early Egyptian sculpture, or with the Sumerian art

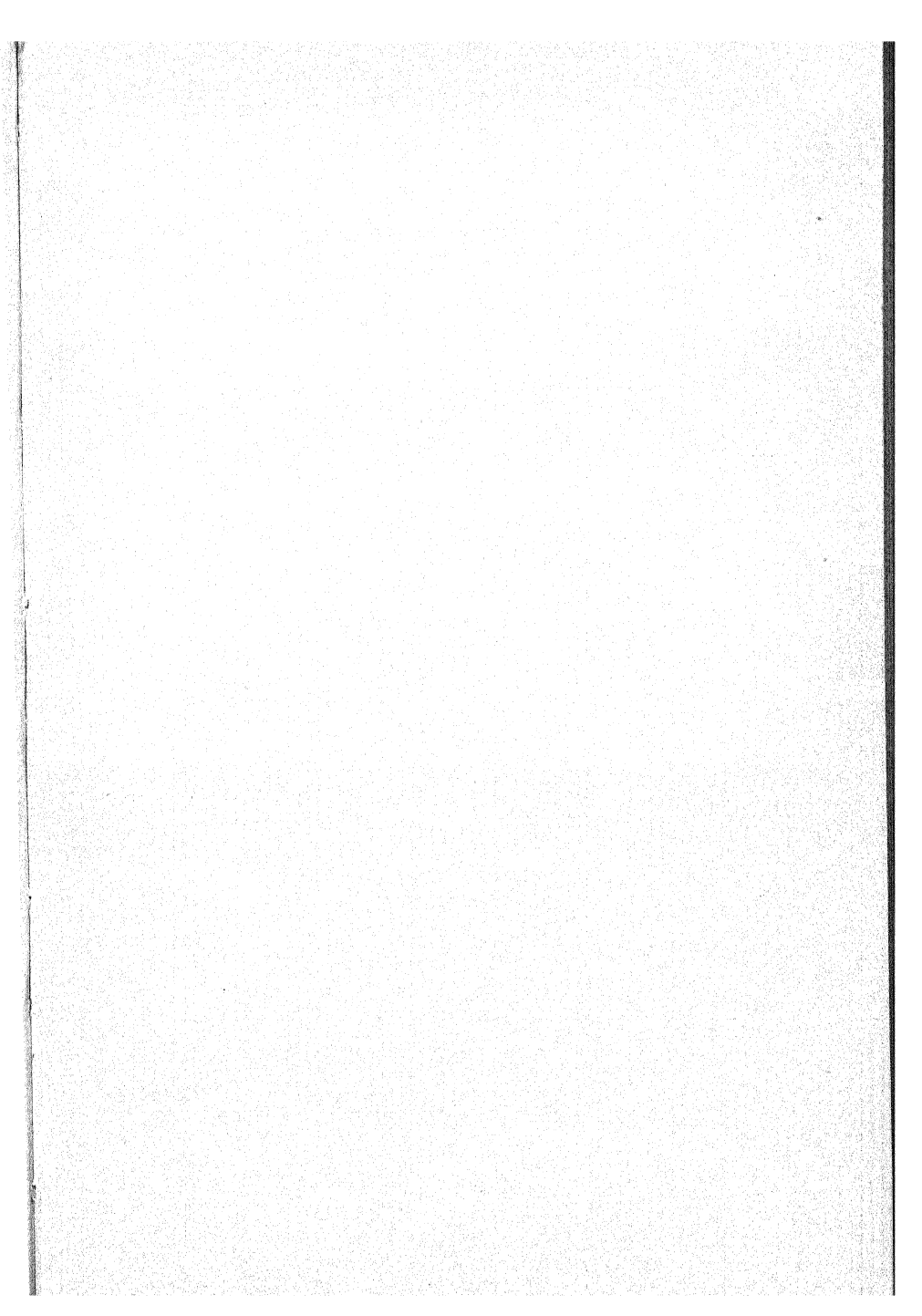
¹ See Garstang, pp. 129, 179, 180.

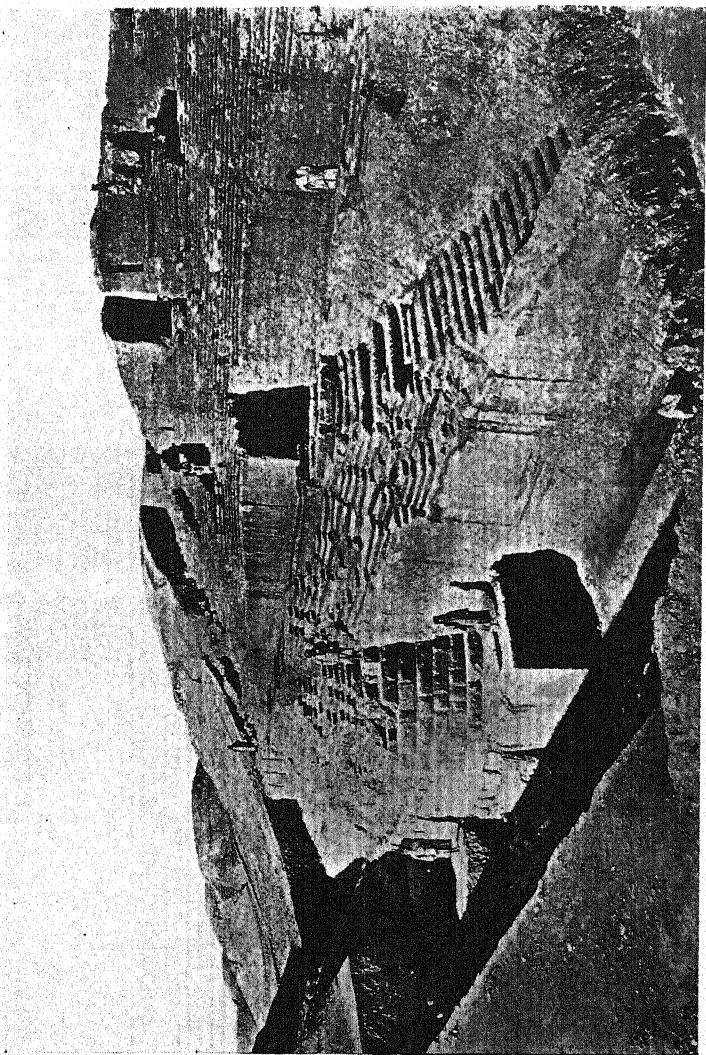
of Tello. It is very different from anything Assyrian. Almost as much may be said of a figure from Karchemish, carved in the round, of a god supported by two lions, notwithstanding a trace of Assyrian influence in the face and beard.¹ The long processional compositions, on the large scale seen in the two hypaethral grottoes at Iasily Kaya, seem to be an original conception,² and having been imitated later by an Assyrian king may be regarded as the forerunners of much decorative sculpture that is found in later architecture of other lands.³ The actual significance of the Hittites in the history of art, or, indeed, in general history, has only been suspected during the last few years, and the relations of their culture to that of Assyria still awaits the enlightenment which continued excavation and, above all, the interpretation of their inscriptions will eventually supply. The following chapters on Assyria will, it is hoped, give the reader such material as exists for the elucidation of this interesting question so far as the art of architecture is concerned.

¹ See "Carchemish," B.M., part ii, pl. B 25.

² Something of the same kind, depicting two processions meeting, but on a much smaller scale, is described amongst decorative reliefs found at Tello (see Meyer, § 384); and the fragments of a processional fresco at Knossos, and the Harvester vase of Haghia Triada must not be ignored, but they represent a minor class of decorative art in which Crete especially excelled.

³ See below, p. 162, 167.





ASSUR: THE SOUTH-WEST GATE WITH RAMP, BASTION AND STEPPED APPROACH, ALL OF LATE ASSYRIAN WORK
(Andrae.) See p. 127.

CHAPTER VII

ASSYRIAN HISTORY

THE origin of Assyria, which was destined to play such a preponderating part in the history, if not in the civilization, of Western Asia, is still obscure. All that can be positively stated is that the kingdom of Assyria grew out of the town of Assur, which was situated on the west bank of the Tigris, opposite the region which lies between two tributaries, the lesser and the greater Zab.¹ That the population in very early times was Anatolian is inferred from the names of two of the first recorded rulers, viz., Kikia, the first builder of the town-wall, and Ushpia, the founder of the temple of Ashur, the tribal god from whom the town was named. This inference agrees with that of anthropologists who find in the physical type of the Assyrians a mixture of Anatolian, Armenian, and Semitic elements. It may be noted also that the city of Nineveh, higher up the Tigris, had also a non-Semitic name (Ninua).² The Semites, who formed the most important element in the later race, are supposed to have wandered, like the Babylonians, from Arabia, through Syria and entered Mesopotamia on the north.³ They were racially cognate with the Babylonians, though generally hostile to them.

¹ See Meyer, § 433*a*. King notes that the site was occupied by Sumerians before Assyrians came. Below the first temple of Ishtar, *i.e.*, before 2000 B.C., were found examples of Sumerian sculpture ("Hist. of Babylon" by L. W. King, pp. 19, 20).

² Meyer, § 434.

³ Cf. Myres, "Dawn of History," pp. 111, 114.

Beyond some historical records on tablets of the later kings, little is known of them before the middle of the second millennium B.C. That a state existed with some sort of independence from the earliest years of that millennium is evident from records which relate to the history and restorations of the temple of Ashur. But it is probable that, as in the Sumerian states of lower Mesopotamia, its power and influence fluctuated and its actual independence was not continuous.¹

However this may be, some of the early chiefs of Assur were certainly vassals of the kings of Sumer and Akkad,² and though one of them is said to have opposed Sumuabu, the founder of the first Babylonian dynasty,³ by the time of Hammurabi Assur and Nineveh are reckoned on the stele of his laws as cities of his kingdom. In the fourteenth century B.C. it appears from one of the Tel-el-Amarna letters, addressed to Amenhotep III, that the king of Mitanni had some control over Assur, but this also appears to have been of short duration.⁴

The first considerable king of Assyria was Shalmaneser I (c. 1290 B.C.), whose expedition across the Euphrates into the Hittite dominions has already been mentioned;⁵ and from this time Assyria appears in history as a restless, warlike, and aggressive state, becoming in the course of six centuries the greatest military power in Western Asia. Shalmaneser was

¹ E. Meyer (§ 435) mentions as a puzzling fact that a number of clay tablets, found in Cappadocia not far from Caesarea, contain names compounded with "Ashur" in ancient Babylonian script, which seems to him to imply the existence of an independent Assyrian state before the Hittite predominance in Asia Minor. But Dr. Sayce has explained this by pointing out that Sargon of Agadé had invaded central Asia Minor, c. 2750, with the professed object of protecting the agents of Mesopotamian merchants who included Assyrians. See J.H.S., vol. xliii, p. 44.

² Meyer, § 434.

³ Hall, "N. E.," p. 193.

⁴ *Ibid.*, pp. 258-9.

⁵ See *ante*, p. 60.

followed by Tukulti Ninib (c. 1250), who attacked and temporarily conquered Babylon, where the ancient Kassite dynasty was nearing its end.¹ But after a few years, what proved to be a last effort on their part once more set Babylon free, and restored to the throne the son of the conquered king—whilst Tukulti Ninib perished in a rebellion fomented by his own son. Babylon, in turn, became a prey to internal discord; but under a new dynasty, of which Nebuchadnezzar I was the most eminent member, retained for more than a century some ascendancy in Mesopotamia.

It was not till about 125 years after the death of Tukulti Ninib that another great king, Tiglath Pileser (c. 1110) restored the prestige of Assyria. He led expeditions to the Upper Euphrates and the district of Lake Van, and penetrated North Syria to the Mediterranean coast. But an attack on Assyria by the Babylonians recalled him to Mesopotamia. Babylon was captured and reduced to vassalage; and from this time, for about 500 years, its history—notwithstanding some fluctuations of fortune—becomes secondary to that of Assyria. Under Tiglath Pileser the Muski invaders of Anatolia were repelled from the neighbourhood of the Euphrates, and the eastern Hittite lands were freed from these invaders only to become subjects to Assyria, Karchemish alone retaining some show of independence.

For the next 200 years no great changes in the mutual relations of the two Mesopotamian powers are recorded. Three unimportant dynasties succeeded in Babylon, and for a great part of the time the history of Assyria remains obscure. But under Tukulti Ninib II, who after a reign of six years was succeeded by his son Ashurnazirpal (884-860), Assyria again appears on the war-path. Ashurnazirpal (the third of that name) was a

¹ See *ante*, p. 20.

military genius of the first order, determined in character, relentless in method, and diabolical in his treatment of conquered foes,¹ and under him the leading position of Assyria was fully regained. He made a progress of conquest through the territories on the north-east side of the Tigris, proceeded round the northern limits of Babylonia, through southern Armenia down the Euphrates, and reducing Karchemish to subjection, penetrated far into Cilicia; then, crossing the Orontes, he made good his supremacy in north Syria and Phoenicia. He confirmed the results of these campaigns on a return march to the Tigris by the way he had come.²

Apart from his conquests Ashurnazirpal III is conspicuous in the history of Assyria as a great builder. He removed his capital from the ancient metropolis of Assur to Kalah (Nimrūd), about 40 miles higher up the Tigris, a military town which had originally been adopted as a residence by Shalmaneser I. There he built the palace which was excavated in the last century by Sir H. Layard. The human-headed and winged lions which guarded one of the entrances, and a number of slabs carved in relief which decorated the interior walls are now in the British Museum. He also built temples to Ninib and Adar, gods of battle.

Ashurnazirpal was succeeded by his son Shalmaneser II, who also was a great warrior. It was in an attempt to consolidate his supremacy in Syria that he came into conflict with the Israelites, who were now divided into two kingdoms. This attempt was not wholly successful, for though he succeeded in exacting tribute from Jehu, King of Israel, an event which is commemorated on an obelisk of black stone found at Nimrūd, and now in the British Museum, he failed in obtaining possession of the great Syrian city of

¹ As to his cruelty, see Hall, "N. E.," p. 445*n*. ² *Ibid.*, p. 447.

Damascus, which was able to retain its independence. But he found some compensation in Babylonia, where, under the pretext of aiding the king to quell a rebellion, he introduced an army, and, after defeating the insurgents, he made the king his vassal.¹

After the death of Shalmaneser II (825 B.C.) a civil war with regard to the succession ensued, and Assyria underwent a period of decline. Later on the rise of a northern kingdom of Urartu (Ararat) occasioned a long-continued warfare which has already been referred to.² It may be at this time that Shalmaneser III (783-773) is recorded to have greatly strengthened the defences of Assur.³ But after the death of his son Ashurdan III (763) civil war again raged, and led to the loss of territories which had been conquered by Ashurnazirpal and to the revolt of Babylon, which had been for some time without a king, but now regained independence under a native ruler (c. 760 B.C.).

Futile attempts were made by some of Shalmaneser's successors to recover the former dependencies, but the continuing and increasing weakness of the government gave rise at last to a military revolt, and the throne was seized by one of the leading officers named Pulu (Pul), who took the historic name of Tiglath Pileser⁴ (745 B.C.). Under this resolute and enlightened ruler new life was infused into the state and people. The king of Urartu was defeated, Syria was brought into subjection, and the Israelite tribes, Reuben and Gad, and the half-tribe of Manasseh, who were domiciled on the east of the Jordan,

¹ An interesting record of the military expeditions of Shalmaneser II may be seen in the brass bands from the gates of Balawat, some of which are in the British Museum. See P. & C., ii, pp. 620 *sq.*, and below, p. 157.

² See *ante*, p. 64.

³ See *post*, p. 126.

⁴ Formerly known as Tiglath Pileser III, but really the IVth, for recent research has shown the third of that name reigned about 920 B.C.

were dispossessed and carried into captivity. Babylon also was again reduced to vassalage.

In the period thus inaugurated Assyria attained the culmination of its power and prosperity. For the next 125 years, notwithstanding an almost continuous state of war, her empire, consolidated with the ancient Chaldaean territories of Babylon, maintained a pre-eminence not only in warfare, but also in science and art, which has left its traces from Lake Van to the confines of Egypt and from Cilicia to the head of the Persian Gulf.

Tiglath Pileser was followed by Shalmaneser IV, whose short reign (727-722) was entirely occupied by wars in Phoenicia and Palestine, in the course of which Hoshea, King of Israel, was his chief opponent. The final defeat of the Israelites, and the fall of Samaria, followed by the carrying away of its inhabitants into captivity, are briefly recorded in Biblical history.¹ Shalmaneser died shortly before the final episode, and was succeeded without any interregnum by Sargon, a great military commander, whose origin and claim to the succession are not clearly known. He became, however, the founder of the last Assyrian dynasty, and after him the throne passed from father to son until the final dissolution of the empire.

Sargon's first enterprise was an attack on the Elamites who had invaded Mesopotamia, and in conjunction with a Chaldaean chieftain known as Merodach-baladan successfully resisted Sargon's efforts to repel them. As a result Babylon fell into the hands of Merodach-baladan, and again obtained independence, with which for a time Sargon did not interfere. For in the following year he attacked and inflicted a severe defeat on the Egyptian king Shabaka, who was supporting the insur-

¹ II Kings, xviii, 9-11.

gent states of Syria and Palestine. And during the next ten years he was fully occupied in continuous war with the king of Urartu, who was supported by the Phrygians, now settled in the former Hittite domains on the west. The eastern Hittites, who still maintained a semi-independence under the suzerainty of Assyria, took the opportunity of repudiating this connexion, but this led to their final conquest by Sargon, and in 717 B.C. the leading city, Karchemish, was occupied and its last king, Pisisir, fled.

Sargon's policy seems, on the whole, to have been the consolidation of his empire, rather than the extension of its boundary. He neither engaged in a contest with the Phrygians, nor attempted to invade Egypt. Having pacified the northern tribes, and maintained his supremacy in Syria and the western Hittite states, he proceeded to settle accounts with Merodach-baladan. He was driven out of Babylon, where his rule had become unacceptable to the people, and Sargon, without further difficulty, established his supremacy throughout the whole of Chaldaea.

Notwithstanding his continuous wars Sargon did not despise or neglect the arts and amenities of peace. As a builder of temples and palaces he did much to promote the culture of his country. The military town of Kalah which Ashurnazirpal had adopted as his capital did not satisfy him, and he founded a new royal residence, Dūr-Sharrukin (Sargon's town), about 40 miles higher up the Tigris. Its ruins, hidden beneath a vast mound of brickdust and the accumulated rubbish of centuries, became in later days the site of an Arab village, Khorsabad, by which name it is still known. Here in the nineteenth century the excavators, Botta and Place, disinterred the remains of a palace, temple, and town wall, which have thrown a brilliant light upon the culminating art of the Assyrians. Sargon, however, did not long enjoy his

creation, for he died in 705 B.C., two years after its completion.

His son Sennacherib reigned for twenty-three years (705-682). He appears from his own records to have been a restless and vainglorious person who came into conflict with his neighbours on all sides. Early in his reign the reappearance of Merodach-baladan led to war with, and the severe defeat of, Elam who, as usual, supported the enemy of Assyria. Risings in Phoenicia and Palestine encouraged by Egypt were suppressed. The siege of Jerusalem (703 B.C.) by Sennacherib, when Hezekiah, King of Judah, bought him off with the treasure of the Temple, is recorded in the Old Testament.¹ In 699 Sennacherib led an expedition into the hill country on the north-east of Nineveh, and in the following year there was an inroad into Cilicia.

For some years after this the king was employed in building at Nineveh, which he made his capital and greatly extended and beautified. His fortifications and palaces were brought to light by Sir H. Layard's explorations at Kouyunjik, the modern village which occupied part of the site. He also repaired the fortifications of the old capital Assur, and built a kind of pleasure-house outside the walls.

In 692 B.C. the Babylonians revolted again, having obtained by bribery the assistance of Elam. In the conflict which ensued Sennacherib, according to his own records, was completely victorious, but as no immediate result followed, the account is dubious. But on the death of the King of Elam in 689, he determined to put a final end to Babylon, and, making a sudden descent on the city, he destroyed its walls, burnt its palaces and principal buildings, and expelled all but a remnant of its inhabitants.

¹ II Kings, xviii, 15.

Towards the end of his reign Sennacherib was again at war with Egypt and advanced as far as Pelusium. It was probably on this occasion that his army suffered the disaster which is described in the second book of Kings (chap. xix), and was forced to retreat by pestilence, Egypt thus escaping invasion for a time. There are few records of the last years of Sennacherib, but his death at the hands of two of his sons is briefly recorded in the same chapter.

Though Sennacherib was hardly to be regarded as a great king, he has left memorials of his reign which give it a special importance in the history of Assyrian culture. He enlarged and re-fortified Nineveh, making it probably, at the time, the most magnificent city in his dominions. On the vast palace which he built the most accomplished art of the period was expended. The number and extraordinary vividness of the sculptured scenes which lined the walls of his state rooms and corridors have illustrated with minuteness the habits, customs, and achievements of a potentate of that time.

Sennacherib was succeeded (681 B.C.) by his son Esarhaddon, who had taken no part in the murder of his father, and was the object of his elder brother's envy and hatred. By energetic action he rapidly quelled the efforts of their supporters, and established himself firmly on the throne. He proved to be a ruler of more statesmanlike qualities than his father, and, with some allowance for the savage customs of his race, comparatively mild in his treatment of the vanquished. He conciliated the Babylonians by beginning at once to rebuild their ruined city, and gained thereby acquiescence in his overlordship.

Several years of his reign were occupied by wars with the Kimmerians and Scythians, confederacies of tribes from the north-west and north-east who had begun to press downwards, by a sort of elemental impulse, on the

richer and more civilized communities of Anatolia and Mesopotamia. It was not until 672 B.C. that he was able, by a politic combination of diplomacy and force, to check their further advance.¹ Only then was he able to undertake what was probably a long-contemplated design, the suppression, once for all, of the intermittent revolts in Phoenicia and Palestine, encouraged by the constant support of Egypt. After securing the submission of the Phoenicians, and of Manasseh, the King of Judah, who had foolishly renounced the more prudent policy of his father Hezekiah, and attempted to revolt—and after establishing his authority in the island of Cyprus, he proceeded, in 670, to invade Egypt. This was the first time that an Assyrian army had entered the Delta, and the Egyptians proved no match for these practised veterans. After a disastrous battle Tirhaka, the Nubian, who was then King of Egypt, retreated to the Upper Nile, and Memphis fell into the hands of Esarhaddon. The latter made no attempt to extend his operations up the Nile valley. He left garrisons in the principal cities of Lower Egypt under vassal kings, and returned to Assyria. But Tirhaka had no intention of accepting defeat quietly. He assembled an army in Upper Egypt, and, descending the river, re-took Memphis and massacred the Assyrian garrison. Esarhaddon immediately set out again for Egypt, but died on the way.

He was succeeded on the throne of Assyria by his son Ashurbanipal—a younger son becoming King of Babylon under his brother. The former hastened to Egypt to carry out the punitive measures designed by his father: and in the result not only was Tirhaka's army again defeated and the Delta occupied, but also, with the aid of a Phoenician fleet which proceeded up the Nile, Thebes was induced to surrender without fighting. For

¹ Hall "N. E.," p. 495.

the next four years Tirhaka made secret attempts to stir up rebellion, which were all successfully counteracted. After his death his son, Tanutamon, invaded the Delta in force after taking Memphis and putting the Assyrian garrison to death (662 B.C.). Once more an Assyrian army led by Ashurbanipal entered Egypt, and drove Tanutamon back to Nubia, and on this occasion Thebes was not spared. The city was plundered, the private houses destroyed by fire, and many of the inhabitants deported; and though the city, with its vast temple of Ammon, continued to retain its religious supremacy, its political importance was destroyed for ever. For the next ten years Egypt remained in a condition of servitude, under the government of a native prince Necho whom Ashurbanipal, with a view to conciliation, had appointed as viceroy.

The power of Assyria seemed now to have attained its zenith. Most of the neighbouring nations were either awed into quiescence, or they courted the friendship of the irresistible Ashurbanipal.

The only irreconcilable enemy was Elam, whose king, probably during the Egyptian campaign, had invaded Assyria. This aggression seems to have prompted Ashurbanipal to a war of extermination. The absence of records renders its progress obscure, but it evidently involved a considerable strain on the resources of Assyria. After intervals of patched-up peace it appears that ten years later (c. 658 B.C.) Te-umman, a new king of Elam, made another incursion into Assyria, but was driven back to his capital, Susa, where he was slain, his head being sent to Nineveh as a trophy. But even this was not the end, for enmity between the two peoples continued to smoulder, and proved, in fact, one of the contributing causes to the decline of Assyria which, notwithstanding its outward prosperity, was unconsciously drifting to its doom.

In 648 B.C. the king of Babylon, weary of dependence on his brother, organized a general revolt in which the Chaldaeans of South Mesopotamia, the Arab states of Syria, and Elamites participated. This was, however, successfully repressed by Ashurbanipal. The King of Babylon, on the city being taken, set fire to his palace and perished in the flames. The Elamites, too, paid the last penalty. The country was invaded, Susa was again taken and sacked, and Elam finally disappeared as a separate state.¹ Ashurbanipal then turned his attention to the west. Having defeated the disaffected Arabs and overrun Phoenicia and Palestine, his army came into contact with the Kimmerian hordes who had made a raid into Asia Minor. These were defeated by the Assyrian generals, and driven back northwards. Having thus re-established his empire in Asia, Ashurbanipal testified his gratitude to his gods by a triumphal procession at Nineveh (642 B.C.).

In one respect, however, he had failed to maintain his supremacy. Psamtek, who had succeeded his father Necho as vice-regent of Egypt, taking advantage of the preoccupation of the Assyrians, had expelled their garrisons with the help of foreign mercenaries and established himself as Pharaoh of Upper and Lower Egypt (651). Under him and his successors, who constitute the XXVIth or Saite dynasty, Egypt enjoyed more than a century of prosperity, undisturbed by Asiatic aggression. Ashurbanipal, who for the next ten years was occupied in setting his own house in order, was in no condition to attempt a fresh conquest of a country which, as experience had proved, could only be

¹ Amongst the trophies carried away by the Assyrians was the statue of the goddess Nana of Erech, which the Elamites had carried to Susa 1635 years before. See *ante*, p. 14, and Hall, "N. E.," p. 507. A translation of the original record is given by G. Smith, pp. 355 *sq.*

held by a continuous military occupation, and it seems probable that the last sixteen years of his life were mainly devoted to those more peaceful pursuits and tastes to which the decoration of his palaces and the vast collection of fictile documents, which formed his celebrated library, bear witness. He died, probably from natural causes, in 626 B.C.¹

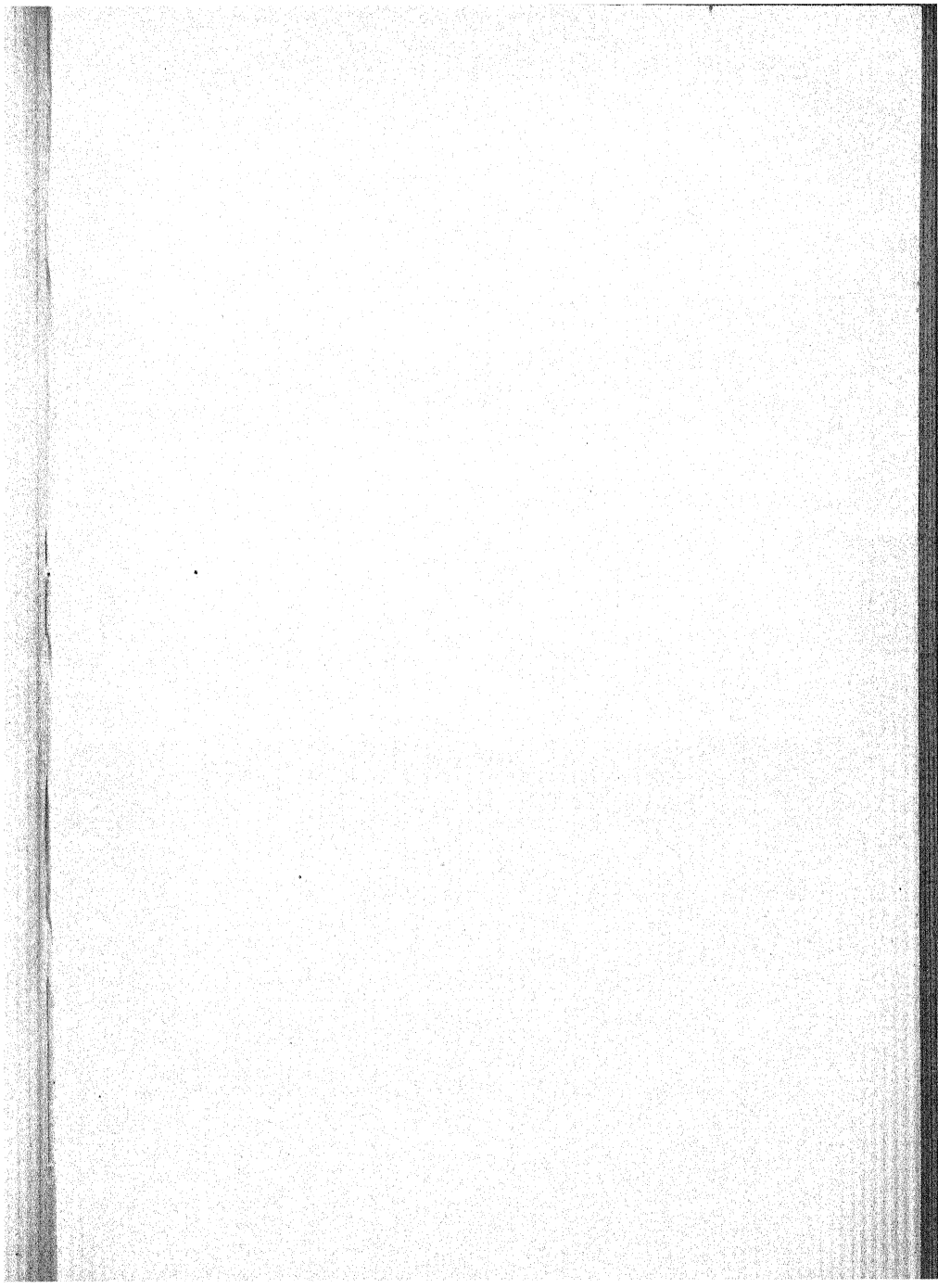
His death was the signal for the disintegration of his empire. He was followed by three or four weak kings under whom, during the next twenty years, the moribund Assyrian monarchy hastened to its end. It is probable that Scythian tribes from the north-west had already penetrated the upper valleys of the Euphrates and had gained a footing in Syria shortly before the death of Ashurbanipal. They soon overran the whole of Syria and Palestine, and even threatened Egypt. An attack was also imminent on the north-eastern frontier of Assyria, where a Median king, Kyaxares,² was gathering together a mixed horde of Medes, Kimmerians, and Scyths. In the meanwhile Nabopolassar, who had been acting as governor of Babylon under the King of Assyria, did not hesitate to throw off the feeble yoke of Nineveh. In connivance, probably, with Kyaxares, he assumed royal dignity, and thus became the founder of a new Babylonian dynasty. Kyaxares then, in conjunction with Nabopolassar and the Scyths, struck the final blow. In 612, after a terrible siege of three years, Nineveh was taken by storm, and if tradition can be

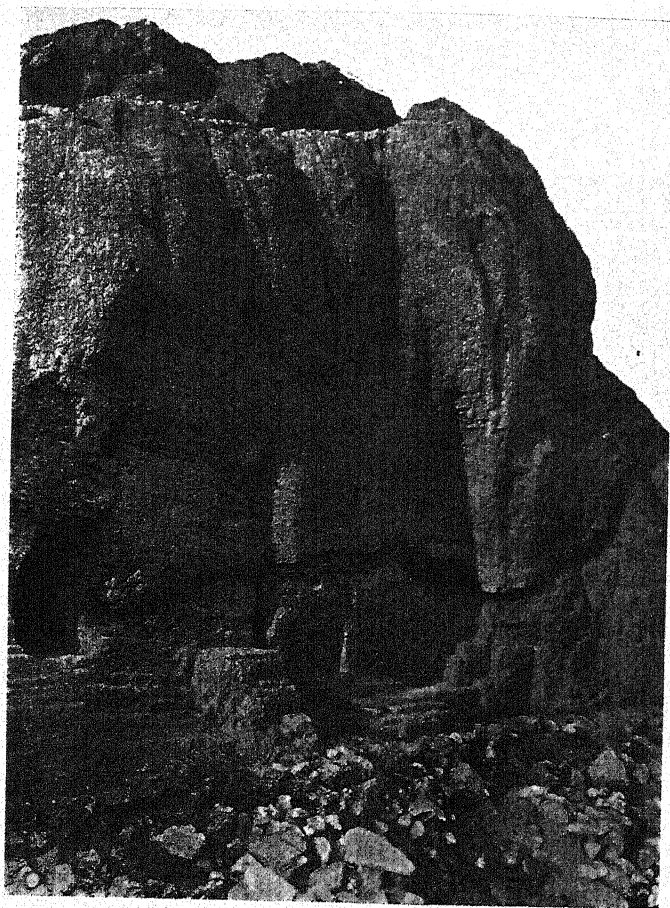
¹ The legend of the death of "Sardanapalus" by fire is probably based on that of his brother, the king of Babylon, or of the last king of Assyria at the fall of Nineveh. See Hall, "N. E.," p. 511.

² The Medes were already regarded as powerful in the reign of Tiglath Pileser IV. In a record of 744 he mentions an expedition in which he reduced "the lords of the Medes" to vassalage: and thirty years later Sargon gives a list of twenty-four chiefs or territorial divisions. See G. Smith, pp. 271, 288.

relied on, the last king of Assyria perished in the holocaust of his palace.¹

¹ Hall, "N. E.," p. 513. The reader may advantageously refer to Mr. Hall's eloquent account of the downfall of Assyria and its causes, and his summary of the character of the people and their rulers. *Ibid.*, pp. 510-517. The date of the fall of Nineveh, generally given as 606, has been shown by a recently deciphered chronicle to have been six years earlier. The same record implies that the Assyrians kept up some resistance for two years after the sack of Nineveh under a new king, Ashuruballit. See paper by Mr. C. J. Gadd, "Times," 12 July 1923, and a publication by the B.M.





ASSUR: THE GREAT BRICK REDOUBT ON THE NORTH, SHOWING
THE INNER CORE

(Andrae.)

CHAPTER VIII

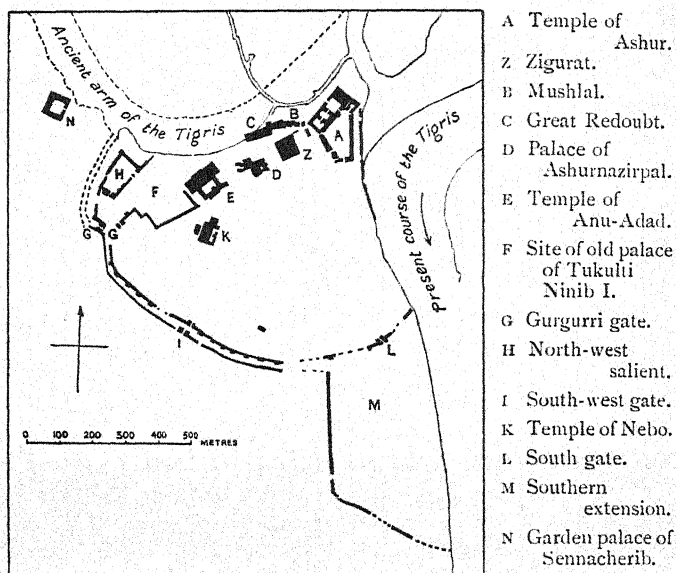
ASSYRIAN ARCHITECTURE

THE absence of any remains of primitive structures in that part of northern Mesopotamia which ultimately became the kingdom of Assyria makes it impossible to trace any independent source for the architecture which is familiarly associated with the later Assyrian kings.

When the Assyrians first emerge in history as a distinct nation they appear to share the culture of the contemporary communities of south Mesopotamia, and to practise the same methods of building. The peculiarities which distinguish their later architecture appear to result from external influences rather than the evolution of any inborn or original tendencies in art. That their earliest rulers were no less assiduous than the Chaldaeans in the building of temples is evident from a few remaining records in the shape of clay tablets; and the references to the regular repair of these buildings make it evident that they were constructed of the sun-dried bricks which continued to be used throughout Mesopotamia till the last days of the Babylonian empire.¹ It is, in fact, a matter of surprise that they adhered so closely to Chaldaean methods, and failed to make more use of the harder material in the shape of gypsum or limestone which was accessible at no great distance from their first settlement on the Tigris.

¹ Meyer, § 463*u.*, gives a lengthy abstract of the inscriptions relating to the early kings of Assur, and their buildings.

The site on which some of the earliest architectural work might be looked for is this original seat, the ancient city of Assur, now known as Kalaat Sherkat. Its situation on the right bank of the Tigris, on a rocky bluff where the river was formerly joined by a tributary from



PLAN OF THE RUINS OF ASSUR

(From Andrae.)

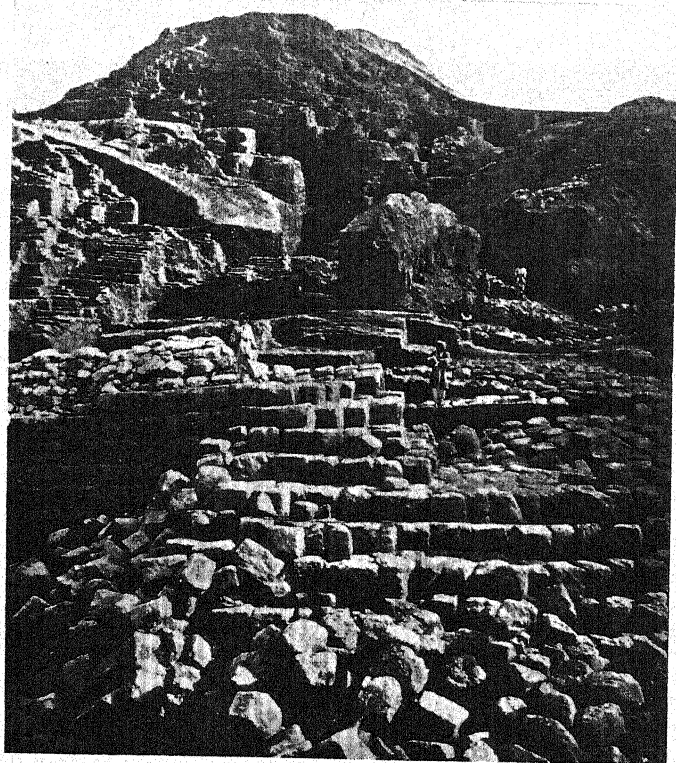
the west, gave the city a quadrantal or fan-shaped plan, supplemented, however, by an oblong extension to the south along the river bank. The width of the original enclosure from north-west to south-east was about five furlongs. It was protected on the east side by the river, and a single wall which ran alongside of it has for the

most part disappeared. On the other sides ampler artificial protection was necessary, and as the fortifications were strengthened by successive kings in the course of more than 1,000 years, there is little of the earlier work visible. On the curved portion of the perimeter towards the open country on west and south, the wall was at one time doubled, and about its centre there was an entrance gateway in the outer wall with a corresponding, but not quite concentric, gate in the inner line. The principal landward entrance, however, known as the Gurgurri gate,¹ was at the north-west angle, and at this point the inner wall diverged to the east with various returns and salients, leaving a space between it and the outer defences which was mainly occupied by a palace built by Tukulti Ninib (1250-1243). Of this only the platform remains. At the extreme eastern end above the Tigris was the great metropolitan temple of Ashur, with a large zigurat on its west. Near the centre of this front was another palace built by Ashurnazirpal, and between the two palaces was a temple dedicated to Anu-Adad. There was a third temple of some size dedicated to Nebo on the south side of the inner walls.

On the northern front of the city the ground fell in a steep declivity of sandstone rock towards the stream which flowed below to its junction with the Tigris. It is here that the greatest care was continuously expended on strengthening the defences. The steep rock was originally fortified by a line of wall more than nine feet thick, strengthened at intervals by wide buttresses. It began closely in front of the zigurat, where some of it remains, but slanted halfway down the slope, the lower part of which formed an escarpment. But in course of

¹ Built by Tiglath Pileser I and restored by Ashurdan II (c. 920 B.C.). See Andrae, p. 4. The double wall is attributed to Shalmaneser III (c. 780), but it is obvious that it replaced or reinforced an earlier rampart.

time the deterioration of the work and the crumbling of the rock-front necessitated the advance of the wall. The



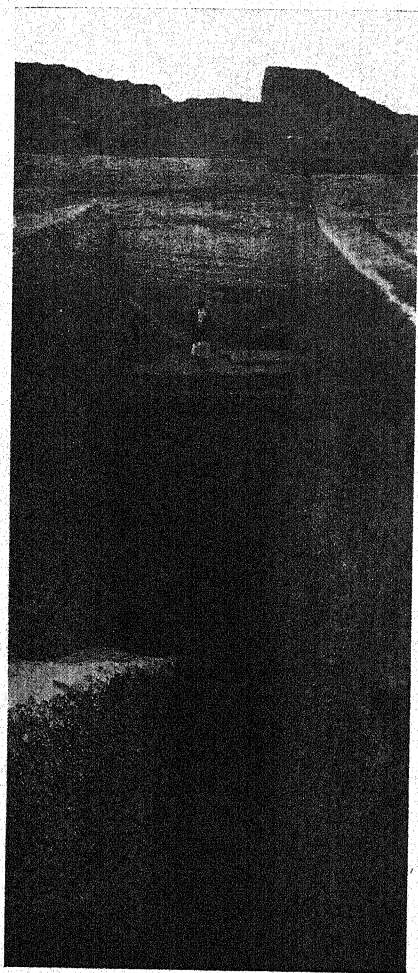
SECTION OF THE MUSHIAL, WITH THE GREAT ZIGURAT

A, line of archaic wall. B, later wall. C, foundations of Esarhaddon's wall.
D, Ashurnazirpal's quay wall. (Andrae, pp. 64-5.)

process was repeated from time to time, so that by the efforts of successive kings the fortifications on this side

gradually assumed, and still retain, an aspect which is truly formidable. Towering up, pyramid-like in the background, are the ruins of the great zigurāt, in front of which are successive levels of the work of later dates. The time which is covered by all this work is divided by Dr. Andrae into four periods, viz.: (i) Archaic, anterior to 1500 B.C., of which there are some few remains; (ii) Old Assyrian, from 1500 to 1000, consisting mostly of the work of Shalmaneser I; (iii) New Assyrian, from 1000 to 722, covering the reigns of Ashurnazirpal III, Shalmaneser III, and Tiglath Pileser IV; and (iv) Late Assyrian, including the reigns of Sargon and his successors down to the fall of the empire in 612 B.C. The full effect of all may be gathered from the remains shown in the illustration. At the base is the line of a quay formed by Ashurnazirpal on the bank of the stream which originally helped to protect the north side of the city, but which must have dried up before the latest additions of Esarhaddon (682-669) which lie immediately above it. This portion of the northern rampart is known as the Mushlāl, an ancient appellation which was originally associated with the temple of Ashur.

Farther west is a still more tremendous defensive work, probably constructed by Shalmaneser I. It consists of a lofty mass of brickwork towering up like a gigantic bastion, with its front divided vertically in receding planes. The lower part appears to have consisted of a plain base, the facing of which has disappeared, leaving the core of rough brickwork exposed. Above this was a narrow ledge or gangway at the base of the upper mass, the sides of which were relieved by buttresses similar to those which occur at Muquayar and other ancient Chaldaean sites. As in them, too, the surfaces are penetrated by the numerous small apertures which are supposed by some to be intended to ventilate the interior mass of unburnt brick. (See illustration, p. 120.)



TRENCH ACROSS THE WESTERN OUTER WALL,
SHOWING THE ESCARPMENT

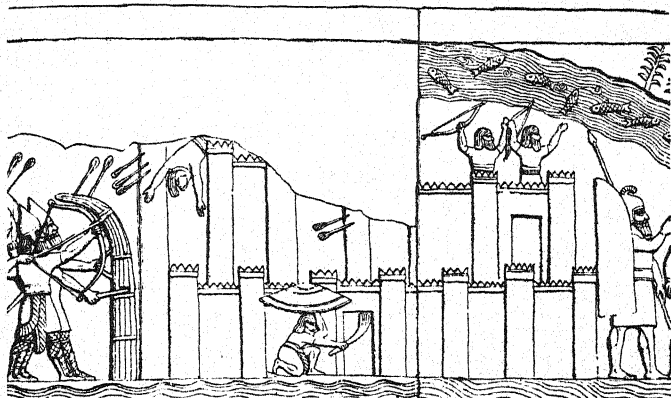
(Andrae.)

The north-west extremity of this front, which had been originally the weakest point, was rendered one of the strongest by the formation of a terrace for the platform of Tukulti Ninib's palace, which prolonged the northern cliff and flanked the easy slope which led up to the wall on the west.¹

The first rampart on the south-west side of the city appears to have lain under the inner line of the later double wall. It is only indicated now by the vestiges of five large rectangular bastions which projected between 60 and 70 feet in front of it, and show signs of frequent reparations. These were probably destroyed by Shalmaneser III when he rebuilt the

¹ Andrae, p. 3.

existing wall and added an outer one which included the space covered by the projection of the bastions. But the inner wall was demolished by the time of Sargon, and the space gained utilized for houses. The remaining fortification was then strengthened by a low advanced outer wall, about as high as the original escarpment with a passage-way encircling the base of the main wall, an



RELIEF FROM SENNACHERIB'S PALACE AT NINEVEH, SHOWING A
FORTIFICATION WITH THE LOWER OUTER WALL

(Layard's "Monuments of Nineveh," vol. ii, pl. 42.)

arrangement which is indicated in some of the mural reliefs. (The south-west gate of this period is shown on p. 104.)

The earlier walls at Assur had, as a rule, footings of fragments of gypsum laid on the natural surface of the soil; but about 1200 B.C. limestone came into use for that purpose. The older walls were always carried up in brick, stone being used only in the facing of escarpments, in hydraulic work, and occasionally in the cresting of the walls.¹ This it may be assumed was almost invariably

¹ Andrae, pp. 11-14.

in the form of stepped battlements such as are commonly represented in mural reliefs. It is obviously suggested by the use of bricks; but Dr. Andrae illustrates a block of limestone about 2 feet 4 inches high, shaped like a three-stepped gable, which had no doubt formed part of a parapet.¹ The stone from portions of these early walls is often found adapted to later structures.

The exploration of this, the original stronghold of the

Assyrian race, proves that their military architecture was borrowed from, or due to, the same sources as the work of the early inhabitants of Chaldaea, and explains the persistent use of brick even when more durable material was procurable without much difficulty. It is in the domestic architecture, illustrated in the royal palaces, that some newer decorative influences become apparent. Our actual knowledge of this architecture is therefore based almost entirely on



HUMAN-HEADED BULL AT ARBAN

About 5½ feet high.

(Layard.)

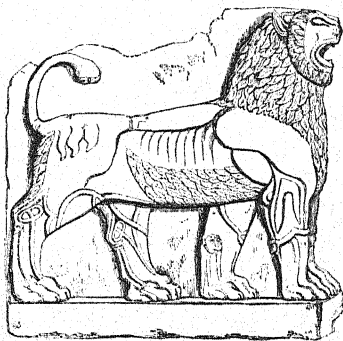
the remains of the great palaces which were built by kings of the later dynasties, and of which the work of Layard, Botta, and Place in the earlier half of the nineteenth century made such a surprising revelation.

Perhaps the oldest known examples of the characteristic architecture of the Assyrians are some remains, described by Layard,² at Arban, on the river Chabour, which flows into the upper Euphrates from the north-

¹ Andrae, p. 90.

² "Discoveries," ch. xii.

east. It is evidently the site of an ancient Syrian town, and here he found, only partially concealed, two slabs of rough limestone about $5\frac{1}{2}$ feet high and $4\frac{1}{2}$ feet long, on each of which was carved in relief a human-headed winged bull. Further excavation disclosed another corresponding pair forming, with the first, the portals of some palatial building, though its walls had long since disappeared. A lion of about the same size and similarly carved in relief was also found, and the mutilated figure of a man holding a weapon in his right hand and clutching something which had probably represented a young animal with his left. All these figures are similar in character to those found on the Tigris sites, and the lion has the fifth leg which is an Assyrian peculiarity.¹ They are, however, smaller in size, coarser and more archaic in execution, and differ in details; and it may be assumed that they belong

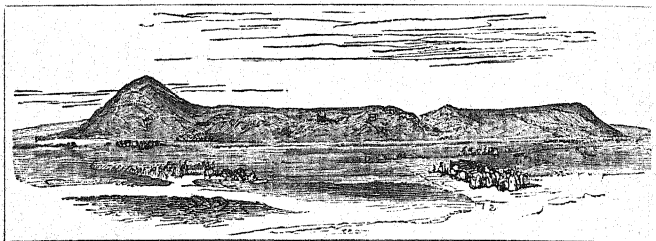


LION AT ARBAN
About $5\frac{1}{2}$ feet high.
(Layard.)

to an early period of Assyrian expansion such as occurred under Tiglath Pileser I (c. 1100 B.C.). Many smaller objects were found on the site, but with the exception of several Egyptian scarabs apparently of the XVIIIth dynasty, they appear to belong to post-Assyrian periods of occupation.

¹ The addition of this extra leg is probably due to the fact that the sculptor wished to show the animal with all four legs complete from the side, and at the same time to avoid the unsymmetrical appearance of the undercutting which would be required in front,

NIMRŪD. Of the larger palaces, the earliest of which any important details remain is that of Ashurnazirpal III, excavated by Layard at Nimrūd.¹ This town, the ancient Kalah, lies on the east bank of the Tigris, about 40 miles above Kalaat-Sherkat (Assur). Its origin is unknown, but it had been adopted by Shalmaneser I (c. 1290 B.C.), probably for military reasons, as his residence. His successors, however, let the town fall into decay and adhered to Assur as their capital city until Ashurnazirpal, animated, probably like Shalmaneser, by a desire to strengthen his northern frontier,



THE MOUND OF NIMRŪD (KALAH) IN 1845
(Layard.)

rebuilt the town and made it his chief military station.² By building for himself a luxurious palace adorned with imposing sculptured portals and innumerable mural reliefs, executed no doubt with the most accomplished art of the age, he established it as the actual capital of the empire. The mounds at Nimrūd which mark the outer wall of the city enclose an area of about one square mile and a third.

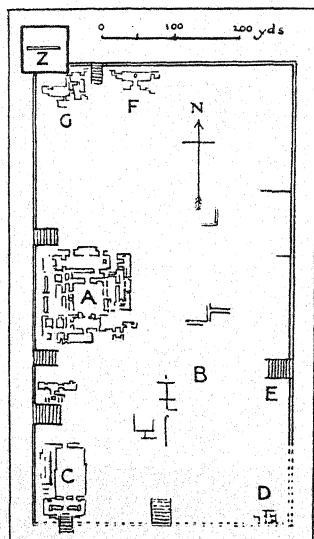
Towards the south-west of this enclosure a rectangular platform about 730 yards long by 400 yards wide was built up close to the east bank of the river. It was

¹ See "Discoveries," chaps. v, vii, xvi, xxvi. ² See *ante*, p. 108.

ascended from the water side by three inlet ramps or stairways which are now only marked by sloping depressions or gullies in the sides of the structure, and there was a similar ascent on each of the other sides. The substance of the mound consists of crude brick and rubble, but it was faced on all sides with solid stone masonry. At its north-west extremity is a pyramidal, or rather a cone-like, elevation, about 140 feet high, which is evidently the ruin of a temple tower or zigurat connected with two small temples adjacent to its south-east angle. It was penetrated by tunnels and examined with great care by Layard,¹ and from his description it is evident that in many respects it closely resembled those of Chaldaea which have been described. It consisted of a square base 20 feet high with sides of about 167 feet in length. These were faced by a wall of stone 8 feet 9 inches thick—the exterior blocks being squared and slightly bevelled at the edges. It was based on the solid rock, but was surrounded by a pavement of brick, as at Muquayar, Abu Shahrain, and elsewhere. As was often the case the walls on the north and west sides were constructed with buttresses at intervals, but the north side is singular in having a hollow projection semicircular in plan, 16 feet in diameter, the use of which is not obvious: it may have been connected with the drainage of the structure. The other sides, which were concealed by the higher level of the great platform, were plain. There are indications that they were finished at the top with a continuous cresting of stepped battlements. The interior was found to be a solid mass of crude bricks. Upon this base was erected another storey, of which only the ruin remained. It had been faced with burnt bricks, many of which appear from Layard's description to have been

¹ "Discoveries," pp. 126 sq.

stamped with the name of Shalmaneser II.¹ After laborious tunnelling at the level of this upper floor a long and narrow chamber, running from west to east, was found. It was paved and vaulted with sun-dried



- A Palace of Ashurnazirpal III restored by Sargon.
- B Site of palaces of Shalmaneser II and Tiglath Pileser IV.
- C Palace of Esarhaddon (unfinished).
- D Buildings of Shalmaneser II and later.
- E Site of temple of Nebo.
- F Temple of Ninib.
- G Temple of Adar (?).
- Z Zигurat.

THE PRINCIPAL RUINS ON THE
PLATFORM AT NIMRŪD

(From Layard and G. Smith.)

bricks, the arch being correctly constructed with voussoirs. In the brickwork of the side walls a course of

¹ In Assyria these temple towers had their successive stages placed concentrically on the one below instead of having a wider space in front as was usual in Chaldaea (see Maspero, "Dawn," p. 627). It is noticeable, too, that the platform at Nimrūd has its sides instead of its angles opposite the cardinal points of the compass.

feeds, such as occurs at Warka and elsewhere, was noticed. Layard supposed that the chamber might be the tomb of the builder of the neighbouring palaces, but as it was empty there was nothing to indicate its purpose. The amount of débris which covered the base and gave the structure its conical appearance was enough to show that it had probably consisted of several stages and could not have been less than 200 feet high.

Ashurnazirpal placed his palace on the western edge of the main platform overlooking the river. Its excavation by Layard revealed a ground-plan which is both smaller and simpler than those of later date, but which illustrates the method of grouping the various apartments round an open central court which, if we may judge by those which have already been mentioned, and by the more elaborate palaces of Crete in their latest phase, had been prevalent throughout the civilized communities of Western Asia for more than 1,000 years. Its area is approximately a square of about 350 feet each way, and the central court, round which the rooms were placed without much regard to symmetry, measures 120 by 90 feet.¹ The usual entrance appears to have been on the north side² facing towards the temple zigurat, but the plan shows that there was an imposing façade with three doorways on the west side, where there must have been a terrace above the river.

Beneath the palace Layard, in forming a sunken road for the removal of some of the heavy sculptures, came upon a subterranean passage lined with sun-dried bricks.

¹ Layard always mentions these central areas as "halls," and in the case of Sennacherib's palace at Nineveh speaks of it as "dimly lighted from above," which implies a roof of some sort. But how a space of more than 146 by 126 feet was roofed does not appear, for of vertical supports there is no trace. Notwithstanding this fact, Layard seems to incline to Fergusson's opinion that columns of some sort were used. See "Discoveries," pp. 445, 647-8.

² G. Smith, p. 71.

Like the gallery within the zigurat, its brick vault shows that the proper construction of the arch was a matter of common knowledge. Below the passage was a small drain or watercourse lined with slabs of gypsum.



VAULTED CHANNEL BENEATH THE PALACE OF
ASHURNAZIRPAL III AT NIMRŪD
(Layard's "Discoveries.")

Amongst minor objects was found a bronze ring which had, no doubt, served as a socket for the pivot of one of the large doors of the palace.

It is unnecessary to describe in detail the human-headed bulls and lions and other figures of gigantic size which flanked the entrances to this and other palaces,

symbolizing apparently the tutelary divinities to whose assistance or protection the Assyrian potentates habitually appealed. Amongst them is a magnificent lion which was one of a pair at the entrance of the small temple of Ninib at the extreme north of the platform. Nor is it necessary to give any explanation of the long series of reliefs in limestone or alabaster slabs which lined the courts, corridors, and principal rooms of the palace. They are amply illustrated in Sir A. H. Layard's well-known works. A large proportion of these sculptures have been brought to England, and may be seen and studied in the British Museum. They not only form the most characteristic feature of Assyrian architecture, but also illustrate, with a minuteness which is only rivalled by the mural decorations of Egypt, the character and culture of the people.

Ashurnazirpal was succeeded by his son Shalmaneser II (c. 860), who also built two palaces at Kalah. One occupied the centre of the platform, but its remains are very imperfect. Amongst them was found the celebrated black obelisk, now in the British Museum, giving an account of Shalmaneser's campaigns, with illustrations in relief of some of the episodes. This palace apparently shared the common fate of the brick-built monuments of Mesopotamia and fell into decay, but was eventually rebuilt and redecorated for his own residence by Tiglath Pileser IV (745-727).¹ After another half-century it was dismantled by Esarhaddon (c. 680), who intended to use its sculptured slabs in a palace which he was building at the south-west angle of the platform. This building, however, was never completed, and many of the slabs transported from the north-western and central palaces

¹ In an inscription of Tiglath Pileser he speaks of "my decorated house like a Syrian palace in the midst of Kalah;" referring apparently to this building (see G. Smith, p. 264). It may be regarded as an indication of the influence of Hittite culture.



COLOSSUS FROM THE PALACE OF ASHURNAZIRPAL III AT KALAH
Height about 11 feet. (British Museum.)



COLOSSAL LION, OF ASHURNAZIRPAL III, FROM THE
TEMPLE OF NINIB AT KALAH
(British Museum.)

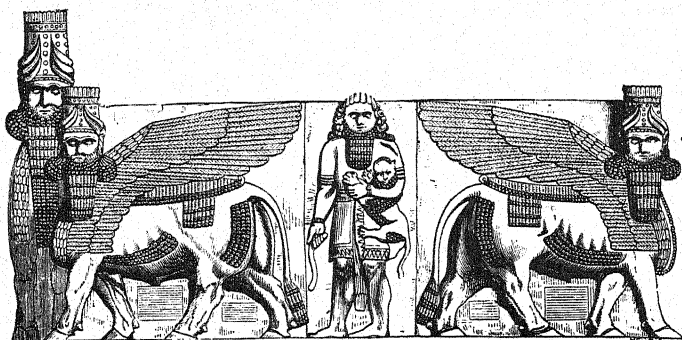
were found unplaced, or in some cases were only detached ready for removal. Tiglath Pileser did not confine himself to Kalah as a residence, for he also built a palace at Nineveh of which, however, there seems to be no definite knowledge.

Further excavations at Nimrūd were undertaken by Mr. G. Smith in 1873, when he examined with some care the south-east portion of the platform. Here he found the remains of what he supposed to be a private dwelling for the kings' wives and families. The outer wall at the south end had fallen away down the slope, but the inner walls remained and six chambers in all were excavated. Doors and recesses were flanked by rectangular rebated pilasters, and the walls were decorated with horizontal bands of red, yellow, and green painted on a plaster ground. At the south-east corner, which was curved, a fragment of the outer wall remained. It was coated with enamelled tiles on which was found depicted an armed warrior, evidently the remains of some military procession. Beneath the building were found the courses of two drains running eastward. In a square chamber at the south edge of the mound a circular hole in the pavement above one of the drains seemed to indicate a latrine. The bricks were marked with an inscription of Shalmaneser II, which probably shows the original date of the building; but there are indications of later occupations, and the whole of this quarter of the building had been converted into a cemetery, some of the burials, which were of various dates, being as late as the third century B.C.¹

KHORSABAD. It was not until the reign of Sargon (721-705)—more than a century after the death of Ashurnazirpal—that there was any outstanding work in architecture which, so far, has come to light. The

¹ See G. Smith, pp. 76-80, and Layard's "Discoveries," pp. 164-5.

town and palace which he founded and built on a tributary of the Tigris about 35 miles above Nimrūd was anciently named Dūr-Sharrukin (the city of Sargon), but is now generally known as Khorsabad, the name of a modern village which occupies part of the site. For centuries it lay concealed beneath an enormous mound, until the excavation begun tentatively by Botta in 1844, and laboriously continued by Place, revealed the plan of a rectangular walled town and the remains of



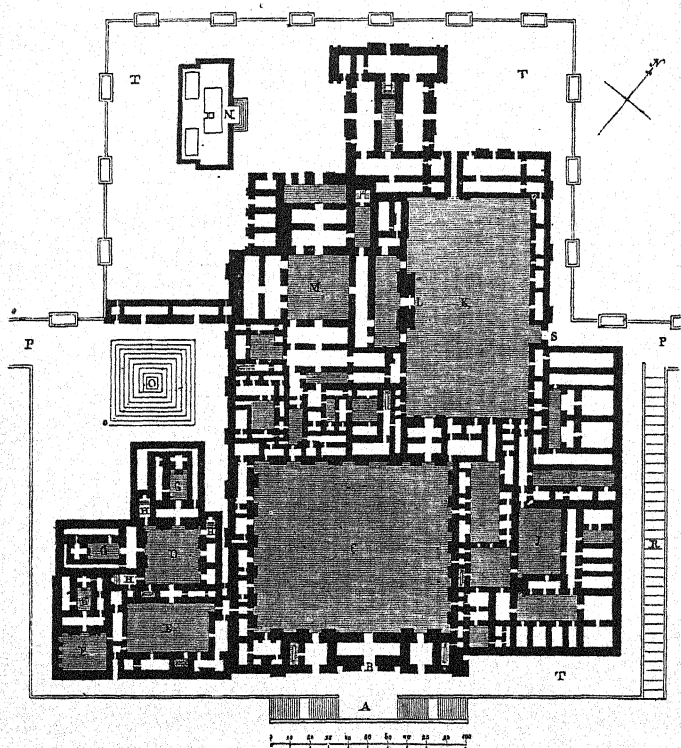
COLOSSAL FIGURES FROM A PORTAL AT KHORSABAD

(The figure on the left flanks the principal entrance to the palace.)

(Lübke.)

a palace in which the peculiar architecture of Assyria seems to have attained its fullest development. The ground-plan of the palace itself is practically complete. The entire building is based on an enormous artificial platform about 45 feet high, 350 yards broad, and 380 yards deep from front to back. It was composed of a mass of sun-dried bricks, faced and buttressed with large blocks of squared stone which rose in the form of a low wall round the edge of the platform. Its longitudinal axis lies, according to the usual orientation,

from north-west to south-east. The front of the building was set a few yards back from the south-east front of the platform and overlooked the whole town from which it must have been approached by one or more stairways, of which some remains are visible, placed parallel to the front. The wall of the town impinges on the sides of the palace platform (PP on plan), and is returned round the north-west quarter of the palace, which forms a rectangular salient somewhat smaller in dimensions than the portion included in the main quadrangle. The palace building, the exterior walls of which are faced with stone, contains about 210 rooms and corridors grouped round two principal courts, and numerous smaller spaces, and it is not difficult to assign their respective uses to the main divisions of the building. The large court behind the south-east front had its interior walls strengthened by heavy but irregularly spaced buttresses. It could apparently be entered from the town only by foot-passengers, and though it afforded a central means of communication between the various divisions of the building it was probably not used for ceremonial receptions. The usual approach must have been through the large court (K) on the north-east side to which vehicles and beasts of burden could have access by means of a ramp (R) which led up to the town wall on a level with the palace platform. The buildings at the back of this court probably formed the more frequented part of the royal residence. In a façade adorned with sculpture of winged human-headed bulls and other figures, a central doorway led into a small and very narrow courtyard, which could also be entered by two smaller doors equidistant from the centre. Beyond and parallel to this court was a narrow corridor at the back of which was an open quadrangle (M). This was the centre of the more private residential apartments which were interspersed with numerous smaller courts and



PLAN OF SARGON'S PALACE AT KHORSABAD (DŪR-SHARRUKIN)

(Lübke.)

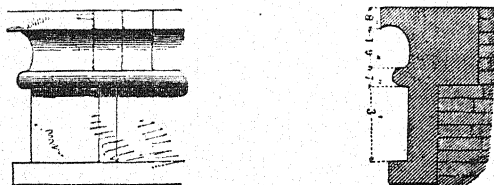
A Approach from the town. B Grand entrance. C Public court.
 DEFGH Courts and rooms of the women. J Central court of the service
 quarter. K Chief court of the royal apartments. L Entrance with decorated
 façade. M Court of Seraglio. N Temple or throne room. O Zigurat.
 PP Connexion with town wall. R Ramp for vehicles. s Usual entrance.
 T T Salient of palace platform.

light-wells. The complexity of the arrangement can only be made clear by an examination of the ground-plan. It will be seen that there is a frequent disregard of symmetry or alinement in the placing of the openings, but it is less marked in this portion of the palace than elsewhere. For on three sides of the court (M) there are two parallel long chambers of the same dimensions showing a regard for symmetrical design; and on the transverse axis of the same court, *i.e.*, from north-west to south-east, there is a long series of openings in successive cross-walls, which accurately coincide and allow of an uninterrupted vista of about 128 yards from the very centre of the palace to the terrace and town wall on the north-west.

It will be seen that the south-west portion of the building forms a separate quarter, which is almost entirely cut off from the rest. It can only be entered through a narrow passage which leads from the large court (C) through three doorways into a court (E), or by another small external doorway in the south front. The rooms in this quarter are interspersed with courtyards, some of which are of very small dimensions; and in some of the rooms there are recesses which appear to have been intended for beds. There can be little doubt that this secluded portion of the palace was the royal harem. Another quarter on the south-east of the great court appears to have been occupied by the offices, kitchens, workshops, and stables; whilst some of the smaller compartments which have single narrow entrances must have been used as store-rooms or magazines for food. In the smaller rooms opening on the south-west side of the great court were found a quantity of earthenware, enamelled tiles, household implements and tools of iron, and numerous objects of bronze.

Immediately to the rear of the women's quarter of the palace was the zigurat or temple tower occupying an

area of about 140 feet square. It probably consisted originally of seven stages, of which four still remain. They were ascended by a continuous staircase returned round the sides of each stage, with easy steps of only 2 inches rise and a breadth of about 6 feet. There was no doubt a landing at each angle. The entire length of this stairway is calculated at about 1,100 yards; its outer side was protected by a parapet finished with the stepped crestring common in the walls of Mesopotamian buildings. The whole structure was faced with

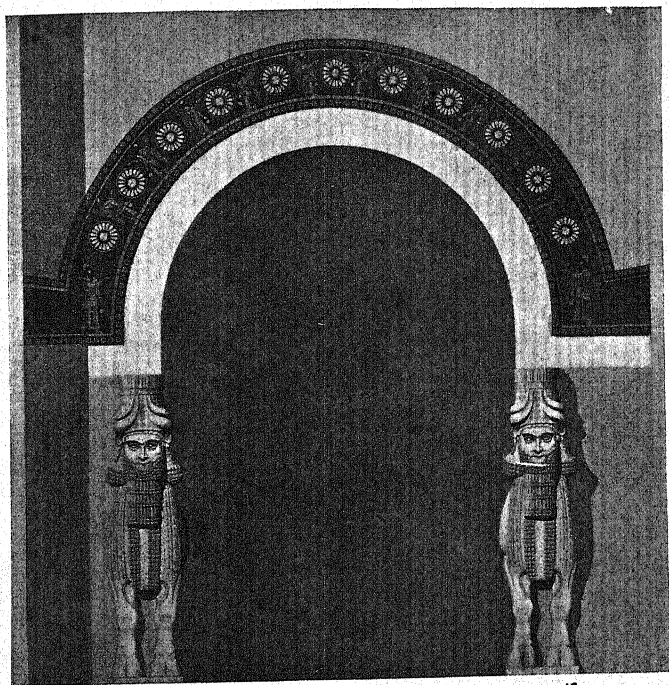


ELEVATION AND SECTION OF THE CAVETTO CORNICE
(Layard's "Discoveries")

enamelled tiles the colour of which varied with each storey.

To the north of the zigurat was a building of oblong form consisting of a single hall standing on a basement 6 feet high and about 177 feet in length by 103 feet in width. Its entrance on one of the longer sides facing north-east was reached by a projecting flight of steps. Its walls were faced with slabs of basalt, some of which were carved, and its exceptional form and construction has led to its being regarded as a temple, though in the absence of any indication as to its purpose it seems possible that it may have been a pavilion or hall of reception for occasional use. The platform on which it stood had a cavetto cornice in grey limestone, which has

a considerable similarity to that which is common in Egyptian buildings.¹



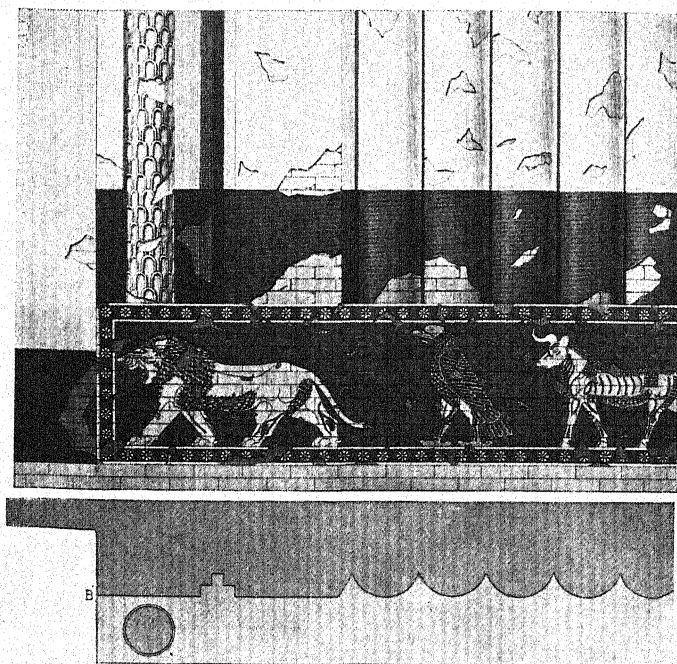
ARCHED GATEWAY IN THE CENTRE OF THE SOUTH-EAST TOWN WALL,
KHORSABAD

(Statham's "Short Critical History of Architecture.")

The town wall, which included a rectangle of something over 1,900 by 1,800 yards, had the extraordinary thickness of about 80 feet. It was built of brick, strength-

¹ See Layard, "Discoveries," p. 130.

ened at intervals of 30 yards by projecting turrets 15 yards broad, and revetted at the base with blocks of squared limestone. The walls are to a large extent fairly



SCALE OF 1 0 1 2 3 4 5 METRES
SCALE OF 1 0 1 2 3 4 5 FEET
INTERIOR WALL DECORATION FROM KHORSABAD
(Statham.)

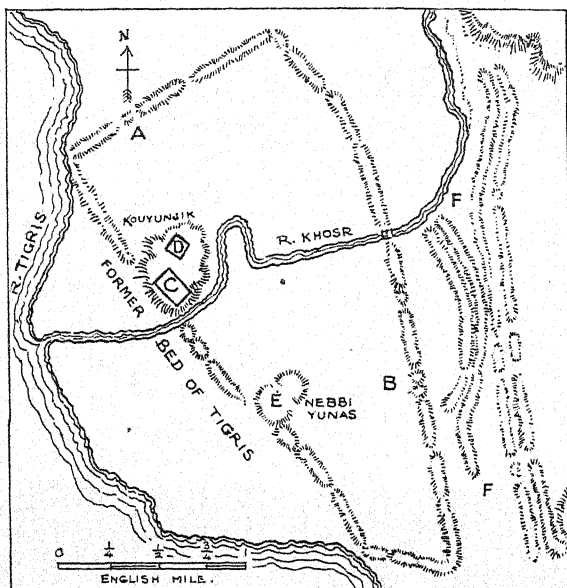
well preserved, and were found to have seven gates of which, however, only three were constructed to admit vehicles. These latter were covered by semicircular vaults which sprang from the backs of human-headed bulls which formed the side walls, and the archivolt

were elaborately decorated with enamelled tiles. In these doorways is shown somewhat more completely than elsewhere the scheme of decoration which prevailed throughout the more public portions of the palace. The colossal figures at the doorways and the general use of tiles brilliantly enamelled in yellow, blue, green, and ochre must have produced an effect of awe and wonder on all who saw them for the first time; an impression which would not be diminished by the vivid scenes depicted, with the subdued brilliance of freshly carved alabaster or gypsum, on the walls of the inner halls and corridors. The front within the court (κ), which was apparently the royal entrance, has some special features. At each of the three doors was a pair of male figures carved in the round, the only examples of such sculpture found in the palace, and at each side of the central door was a palm trunk column about 30 feet high, covered with scales of gilt bronze. A mural decoration which occurs both on outer and inner walls consists of a series of half-cylinders in close juxtaposition found in groups of seven, alternating with vertical channels. Its similarity to that which has been noticed as occurring at Warka (*ante*, p. 50) is obvious; though in one case it is elaborated by having a skirting of painted animals—bulls, lions, and hawks. The decoration of the more private portions of the palace appears to have been limited to wall-paintings.

NINEVEH. Within the next twenty years another palace still larger in size was built by Sargon's son, Sennacherib (705-682) at Nineveh. This ancient city had been the site of a temple of Ishtar from immemorial times. It is said to have been restored by Shamshiadad early in the second millennium B.C.,¹ but Shalmaneser I

¹ G. Smith, pp. 91, 140, 247; E. Meyer (§ 464*n.*) mentions it as built by Tiglath Pileser I. Shamshiadad III was about twenty years later (1080 B.C.).

(c. 1290) is the first king who is recorded to have built a palace at Nineveh and made it the seat of government. It remained the capital until Shalmaneser II (860) transferred the government to Kalah (Nimrūd), but his grand-



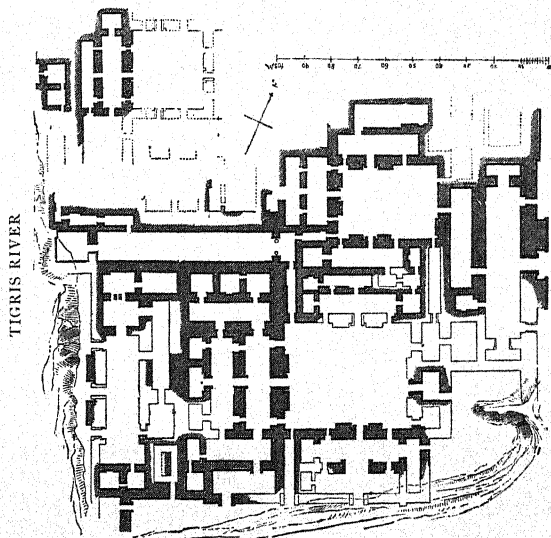
PLAN OF THE RUINS OF NINEVEH

(From G. Smith.)

- A North gate. B Great city gate. c Palace of Sennacherib.
 D Palace of Ashurbanipal. E Site of later palaces of Sennacherib and Esarhaddon. F F Outer ramparts.

son Adadnirari III (811) and Tiglath Pileser IV (745) both built palaces at Nineveh. Sennacherib once more made it the capital of Assyria, and in doing so he transformed it into a magnificent city, surrounding it with walls which are still in parts nearly 50 feet high, and were

apparently about 50 feet in thickness. They were extended to a total length of about 8 miles and included parks and open spaces which were watered by a tributary of the Tigris which flowed through the centre of the city. On the northern side was an elevation now known as Kouyunjik from the Arab village which grew up on the



PLAN OF SENNACHERIB'S PALACE AT NINEVEH (KOUYUNJIK)
(Lübke.)

mound covering the ruins ; on the south was an eminence known as Nebi Junas, the traditional site of the grave of the prophet Jonah. It was on the northern height that Sennacherib built for himself a stately dwelling which was excavated with some completeness by Layard and George Smith.¹

¹ See Layard, "Discoveries," pp. 66, 651, and G. Smith, chapters vi, ix.

Its plan is only partially preserved, but it exhibits the same general character as Sargon's, though it illustrates in a greater degree the disregard of symmetry and want of unity in the general design which characterizes these ground-plans generally throughout Mesopotamia. The most striking feature about this building was the vast amount of sculpture in high and low relief which decorated its portals and inner walls and has preserved a pictorial record of Sennacherib's reign. Much of this vivid and in many cases highly expressive work has been brought to England, and shows the plastic art of the Assyrians probably at its highest level.

G. Smith¹ illustrates a carved lintel from a doorway



DOOR LINTEL FROM SENNACHERIB'S PALACE, NINEVEH
(G. Smith.)

in the great court which shows an altogether new motive in Assyrian decoration. Its peculiar design of two winged dragons facing each other in the style of mediæval heraldry, and guarding a bowl-like vessel between them, seems to owe its origin to some Phrygian tomb;² whilst a certain gracefulness in the conventional rendering of the animals, rare in Assyrian art, seems to anticipate the work of a romanesque or mediæval sculptor. It is probable that it was brought from elsewhere.

On the southern height called Nebi Junas are the remains of a later palace which Sennacherib built towards the end of his reign, and near it is the much earlier building of Adadnirari III (812), the grandson of Shal-

¹ Pp. 308, 452.

² See "Hellenic Architecture," p. 46.

maneser II, which do not call for special notice. The palace of Tiglath Pileser IV was situated near the bend of the river Khosr, but has apparently been destroyed by later builders.¹ Sennacherib's son, Esarhaddon (682-669), also built a palace on the Nebi Junas site, but if his unfinished work at Nimrūd may be taken as a criterion, he cannot be reckoned amongst the royal builders who promoted the art of architecture.²

His son, Ashurbanipal, seems to have had a higher appreciation of art. The last of the great Assyrian palaces was built by him at Nineveh on the site of one which Sennacherib had built for Esarhaddon on the northern part of the Kouyunjik mound. It was destroyed in the final catastrophe which put an end to the empire; but valuable relics of it have survived in the shape of a remarkable series of mural reliefs, and the extensive collection of Babylonian and Assyrian inscribed tablets which formed Ashurbanipal's famous library.

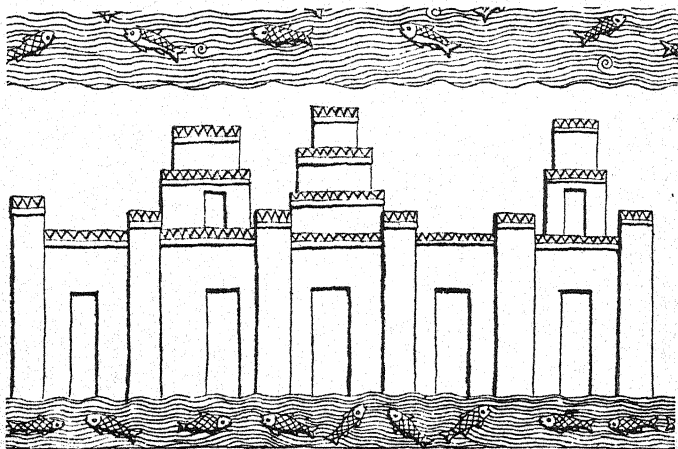
The sculptured slabs, in comparison with those of earlier date, show a great advance in artistic expression and indicate that a school of sculpture had arisen which, if Assyria had refrained from aggression and sought peace with her neighbours, might have made her a nation of permanent significance in the history of human culture.

The excavation of these great buildings has illustrated their ground-plans with sufficient completeness, but there is much more uncertainty as to their elevations and the details of their upper structures. There is no positive evidence as to how they were roofed or whether there was usually more than one storey, nor as to the manner in which the various rooms were covered and how they received light from without. That the roofs were flat, as usual in oriental houses, is hardly a matter of doubt,

¹ G. Smith, p. 139.

² See *ante*, p. 135.

and the complete absence of anything like internal staircases seems, notwithstanding Fergusson's fanciful restorations, to dispose of the idea of there being an upper range of rooms. It is true that the ramped form of some of the mural slabs indicates that they formed the lining of a sloping corridor, and Layard describes such a



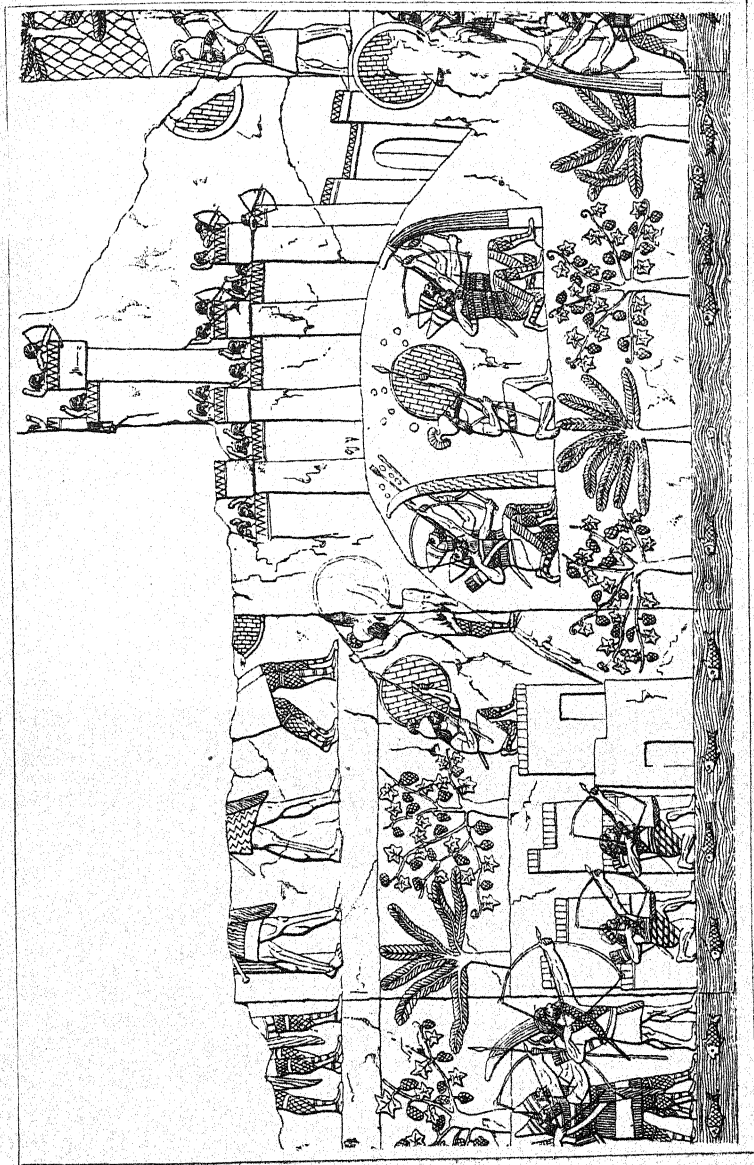
WALLS OF A CITY WITH GRADUATED TOWERS

From Sennacherib's palace at Nineveh.

(Layard's "Monuments," vol. ii.)

passage in Sennacherib's palace which, he supposed, gave access to upper chambers or galleries.¹ Moreover, some of the panels illustrating besieged towns show upper works above the parapets which may have been erected for defensive purposes, but in general it must be assumed that any upper rooms were limited to pavilions or light structures which may have been used for the

¹ "Discoveries," pp. 460-2.

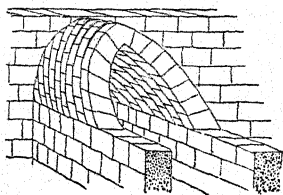


SIEGE OF A FORTRESS ON A HILL

From Sennacherib's palace at Nineveh. Portions of an upper fortification are shown. (Layard's "Monuments," vol. ii.)

sake of nocturnal coolness. It seems then that the only buildings which were systematically divided into storeys or stages were the temple zigurats, and these, except the topmost stages or shrines, were practically solid structures. The stages were connected either by external stairs, or in some cases by ramping the uncovered margins of the platforms so that the fourth side of each reached the level of the next.

The manner in which the rooms were covered, whether by a flat ceiling supported on timber beams or by an arched vault, has been a matter of debate. That vaulted



METHOD OF VAULTING WITHOUT CENTERING

(Statham.)

passages were in common use is shown by numerous examples, though these have mostly survived only in subterranean work. One found by Place at Khorsabad shows that the successive courses of the vault, instead of being built in vertical planes, were inclined at an angle; and Loftus describes a vaulted tomb at Sinkara (Larsa) in

which the courses were inclined at an angle of 45° , the first forming one of the end-walls, being inclined in the opposite direction so as to sustain the thrust of the succeeding courses.¹ The reason for this is, no doubt, that the vault was constructed without a timber centering, and the bricks, used whilst still damp, adhered to the previous course without any temporary support. The long and narrow proportions of so many of the rooms, and the extraordinary thickness of their walls, seem to justify the assumption that in many cases they were

¹ Loftus, p. 252. In these cases the tiles must have been specially moulded with chamfered edges, in order to give a smooth surface to the vault.

roofed with barrel vaults.¹ But in some cases there is no doubt that timber beams were used when the material could be imported from forest regions such as Lebanon. Layard describes an occasion when a strong smell of burning cedar wood called his attention to the fact that some of his workpeople had made a fire of some beams which they had found in the small temple at Nimrud, and many more such beams were discovered.² Apart from the larger quadrangles which Layard calls halls, but which must have been open courts, there are a few compartments shown on the ground-plans which have spans of between 40 and 50 feet. If these were covered it seems necessary, in the absence of any indication of upright supports, to assume that some method of splicing the horizontal beams must have been employed. Layard, following to some extent the arbitrary ideas of Fergusson, adopted the idea that columns were in general use, though there is no positive evidence of their ever having been employed as free-standing supports.

It is true that objects have been found which appear to have served as bases for cylindrical shafts.³ Even in the more ancient buildings of Lower Mesopotamia columns occur, as has already been mentioned in chapter IV,⁴ and the object described by Taylor seems to have been a column base with the same bulbous form as the example from Khorsabad. But in this case and that of the column shafts found by Mr. Hall at El Obeid, their composite structure is inconsistent with their being used as efficient supports: and it seems obvious that the use of columns was purely ornamental, as accessories to

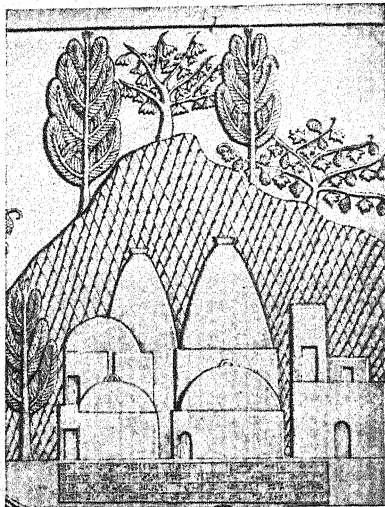
¹ Strabo (XVI, i, 5), writing of Seleucia in the age of Augustus, says that "all the houses are vaulted on account of the scarcity of timber."

² "Discoveries," p. 357. Some specimens were sent to the British Museum.

³ *Ibid.*, p. 590.

⁴ See *ante*, pp. 37, 39.

portals or frontispieces.¹ The decorative use of half-columns on wall surfaces is characteristic of the earliest and latest temples or palaces, and is illustrated both at Warka and Khorsabad. No more can be inferred from



DOMED BUILDINGS, ON A SLAB FROM
NINEVEH

(Statham, after Layard's "Monuments.")

a frequently copied relief from Khorsabad which represents a pavilion or summer house by the side of a river, and shows two columns *in antis*, the capitals of which have a double volute resembling in some respects the later Ionic capital. This work must be too early to be regarded as an example of Ionian influence: on the contrary, it suggests that the Ionians assimilated a decorative motive which prevailed throughout Anatolia, and was

occasionally adopted by the Assyrians.²

If the general use of barrel vaulting is admitted it is difficult to avoid the inference that the same ingenuity

¹ Strabo, in the passage already quoted, says: "On account of the scarcity of timber the beams and pillars of the houses were made of palm wood. They wind ropes of twisted reed round the pillars, paint them over with colours and draw designs upon them." They were probably encased in a coating of plaster, and could only have been used under light bearings.

² On this subject see P. and C., vol. ii, pp. 142-3, and "Hellenic Architecture," chap. x.

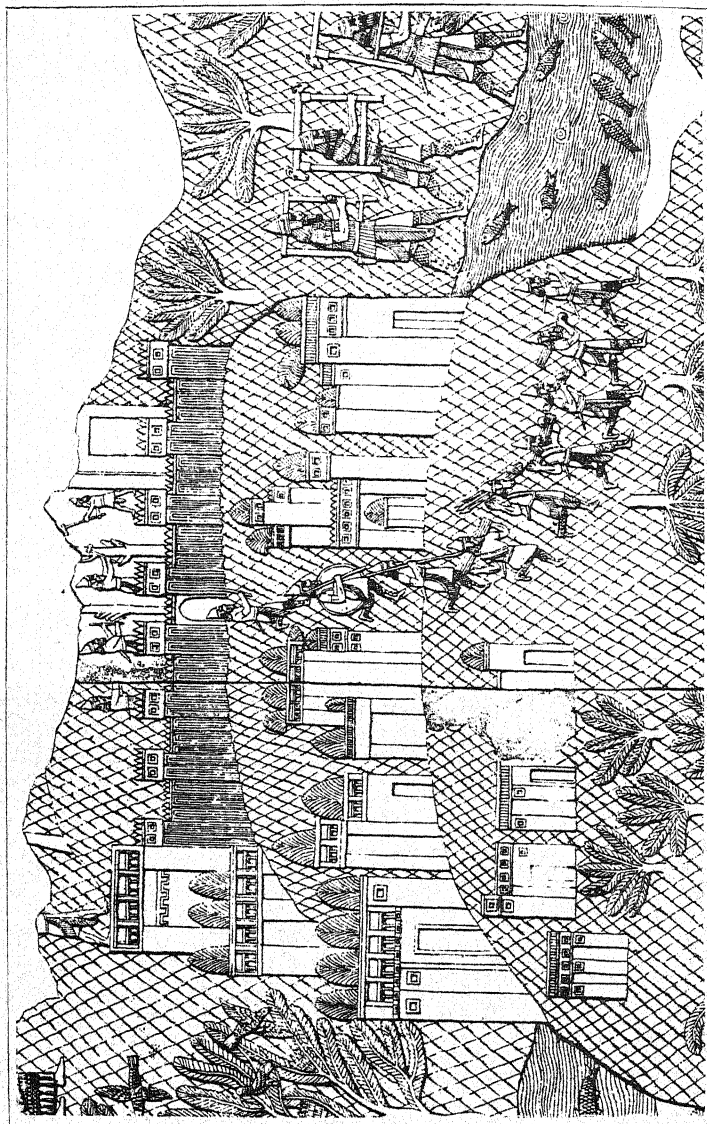
and experience in the employment of plastic material, which led to the construction of an arched vault without centering, had also enabled Mesopotamian builders to evolve a domical roof on occasions when the size and shape of the room suggested its use. Actual evidence of such work, though scarce, is not altogether wanting. At Abu Shahrain Taylor, as described in chapter IV, found evidence of the previous existence of a domed ceiling;¹ and that the Assyrians at a much later date could construct domes of some size is proved by a well-known bas-relief from Sennacherib's palace at Nineveh, in which several spheroidal cupolas with small apertures at the top are shown. The taller ones have the appearance of being some sort of kiln in which bricks were baked; or possibly where the enamelled tiles which formed an important feature in the decoration of the later palaces and gates were glazed and fired. The others may have been huts for workpeople.² In other reliefs what seem to be meant for small pavilions are shown as half-domes. If arguments *a posteriori* are admissible they may be found in the later development of such work as is shown in the enormous semi-dome of the Sassanian palace at Ctesiphon, or in the fact that in more recent times in Syria small houses, in default of timber, have been similarly roofed.³ If, as seems likely, the early builders of Mesopotamia were the first to practise this method of roofing, it may be regarded as their most important contribution to the evolution of later architecture.

The question of fenestration is to some extent con-

¹ See *ante*, p. 42.

² Some doubt must be felt as to the scale of these representations; but if the doorways shown may be taken as a modulus the tall domes must have been about 40 feet high.

³ The modern roofs shown in an illustration in Layard's "Discoveries" (see p. 160 below), are in some respects curiously like the Assyrian representations. See also Lethaby's "Architecture" (Home Univ. Lib.), p. 72.



PLUNDER OF A CITY SITUATED ON A RIVER

From Sennacherib's palace at Nineveh. The square window openings beneath the parapets indicate the method of lighting the rooms. Some vegetation on the roofs seems to be suggested. (Layard's "Monuments," vol. ii.)

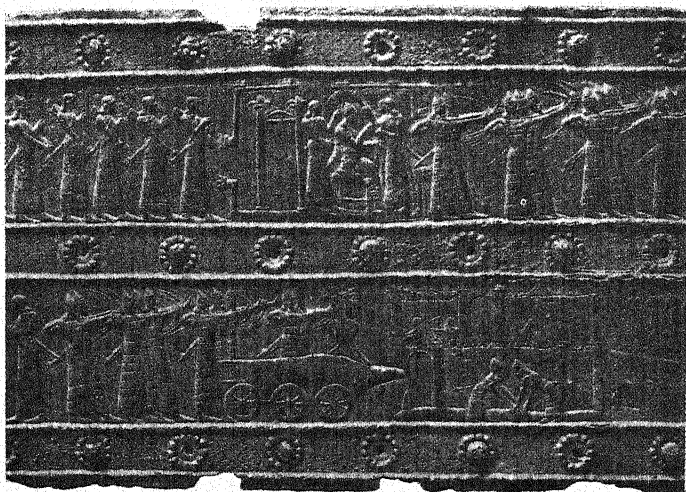
nected with that of roofing, for it is sometimes supposed that in the absence of an upper floor the rooms would be lighted from above. This seems, however, to be very doubtful. It is unlikely that in the climate of Mesopotamia the direct rays of the midday sun would be admitted, or that a high light would in any case be desired. Moreover, an aperture in rooms that were vaulted would present some structural difficulty. In many of the wall-reliefs the representations of buildings show a row of small windows just below the cornice, and it seems probable that these admitted all the light that would be required. This applies, of course, only to outer walls; but it is noticeable that in the ground-plans of the palaces that have been given, there are very few cases in which there is not an open space adjacent to one of the walls.

The principal portals of palaces and temples flanked by colossal figures of winged and man-headed bulls and lions, interspersed with mythological figures of more human shape, which evoked the astonishment of the first modern explorers, must at all times have been the most impressive feature of these buildings. Though the upper parts of these gateways has in most cases disappeared, enough remains to show that a semicircular archway was supported on the head and backs of two colossi placed frontwise; and the example of a town gate at Khorsabad shows that the archivolts were richly decorated with coloured and glazed tiles (see p. 143).

As to the actual gates there is some evidence of their form in a set of bronze bands with which the wooden doors were bound, a portion of which is now in the British Museum.¹ They were discovered by Rassam at Balawat, on the east side of the Tigris, a few miles below the site of Nineveh. The form of these bands,

¹ Part of the set is at Berlin.

each of which has one end bent round in a nearly complete circle, shows that the door consisted of two heavy wings attached to thick cylindrical pivot-posts by the bands which passed horizontally across the width of each door. In this case the bronze is elaborately decorated



PORTION OF ONE OF THE BRONZE BANDS OF THE GATE OF BALAWAT

Above: Shalmaneser II seated behind his archers.

Below: An Assyrian battering-ram in action.

(British Museum.)

by repoussé work which illustrates in a highly interesting manner numerous military expeditions of Shalmaneser II.

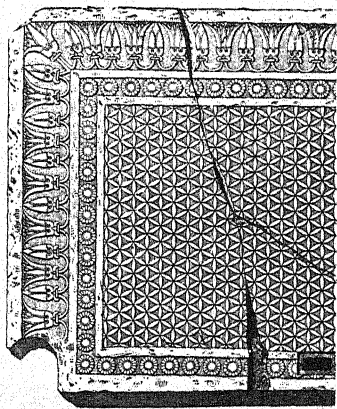
The form of the upper portion of the walls is well indicated in many of the mural reliefs, in which the tooth-like cresting represents the stepped battlements which naturally result from the use of rectangular bricks of uniform size throughout the whole wall. Even when

a stone parapet was used, as noted at Assur, the same form was retained. The solid turrets which occur in fortifications at such frequent intervals are a development from the buttresses or flat pilasters which are found on the solid bases of the zigurats, as at Muquayar and Abu Shahrain, and were obviously useful in the defence of the walls. Such fortifications are not peculiar to Mesopotamia, and seem to have been adopted from very early times throughout the civilized countries of the East.

In the application of the minor arts and in internal decorations the widespread influence of Egypt is apparent in the frequent use of the lotus as a motive, as may be seen in the cast of a slab in the British Museum. It occurs both in stonework and in smaller carvings in ivory. With it is often found a circular patera, based on a floral suggestion

which occurs much earlier in Aegean art, and may have been introduced to Assyria through the islands and the south coasts of Anatolia. The same source may be assigned to the anthemion or honeysuckle pattern, which is used in the Assyrian "tree of life," found in reliefs which have a religious significance.

The somewhat barbaric character of the external sculptured decoration was increased by the use of metal plating. In Tiglath Pileser's description of his "Syrian "



STONE SLAB WITH A LOTUS-PATTERN
BORDER, FROM NINEVEH

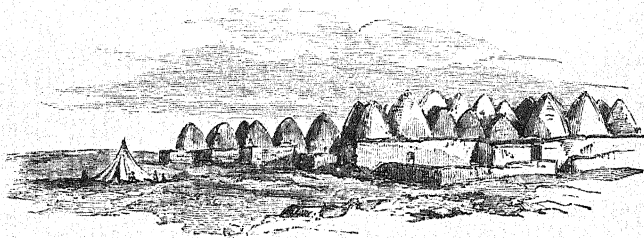
(Statham.)

palace at Kalah (Nimrūd) he mentions particularly the entrance with lions, winged lions and bulls, and figures carved in the likeness of the great gods, and adds, "coats of *karri*, gold, silver, and copper to complete them I covered over them. I beautified their workmanship."¹

Though there is evidence of a love of highly coloured decorations, the examples that remain *in situ* are very few. The coloured tiles, such as those which adorned the arch at Khorsabad, were a development from the ancient art of Mesopotamia, which is better illustrated in the later days of Babylonian empire.²

¹ G. Smith, pp. 264-5.

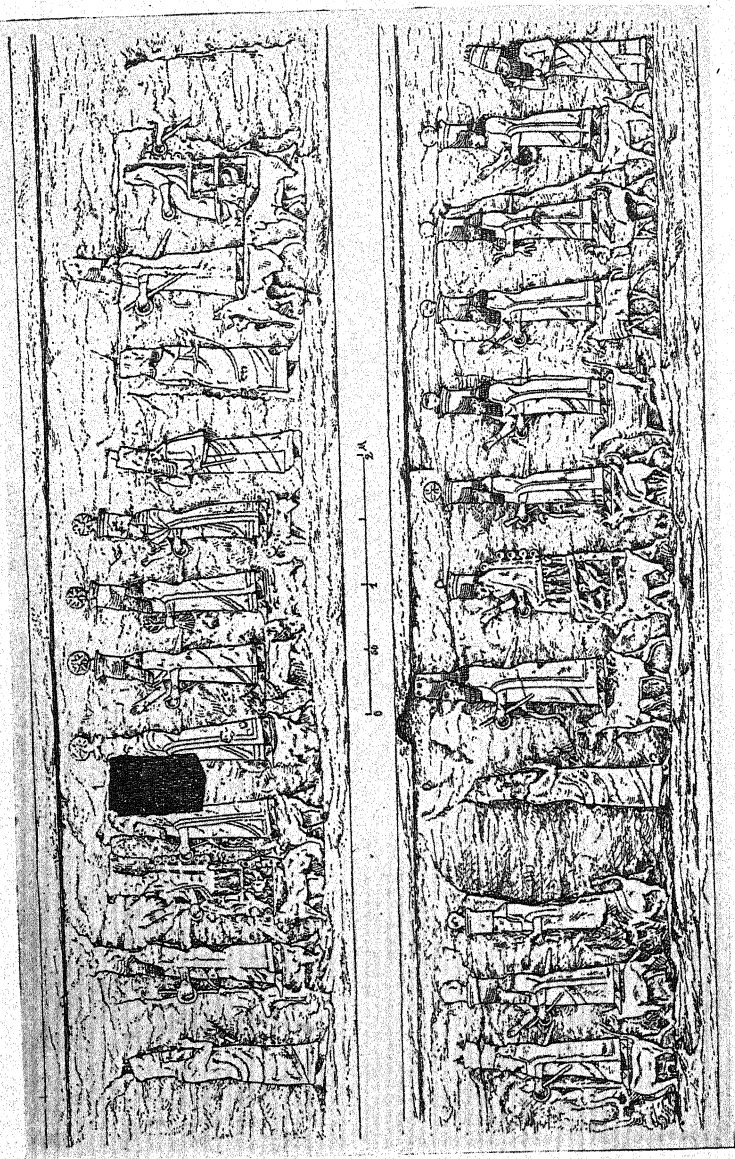
² Some of the tiles found at Nimrūd had interesting figure subjects. See Layard's "Discoveries," pp. 166-7. Facsimiles may be seen in his "Monuments of Nineveh." P. and C. (vol. ii, ch. vii) also give coloured illustrations of some, and of the painted decoration of interior walls.



MODERN VILLAGE WITH DOMED ROOFS, NEAR ALEPPO

(Layard's "Discoveries.")

M



ROCK RELIEF AT MALTHEI as given by V. Place, "Ninive et l'Assyrie," p. 45.

The carving is in one continuous line, originally about 330 yards above the level of the pass. See p. 167.

CHAPTER IX

THE SOURCES OF ASSYRIAN ART

THOUGH the methods and forms of Assyrian architecture were originally identical with those which accompanied the Sumerian culture of Lower Mesopotamia, it was inevitable that they should be affected by local conditions, and that the use of stone which could be procured with little difficulty should play a more important part in it than was possible in the purely alluvial regions farther south. It has been shown how stone in the form of gypsum and limestone was more freely used in footings and revetments and sometimes in the parapets of walls, and when foreign expeditions had brought Assyrian rulers into contact with nations more skilful and practised in art it is not surprising that they learnt to use the excellent material that lay at hand in the decoration of their palace walls. And though this art remained to a large extent imitative, it had characteristics which reflected the somewhat barbarous culture of the people, and which gave to Assyrian architecture the peculiar and strongly marked features which distinguish it so unmistakably from all other forms of art.

The foreign influences which affected it were apparently two : that of Egypt, which, so far as it existed, was indirect, derived through other countries or through the importation of Phoenician traders' wares ; and that of the Hittites, which, coming direct from North Syria, had a more powerful and continuous effect. That the ancient

rulers in Sumer set store by sculptured monuments and statuary, and imported stone for the purpose, has been shown in the early chapters of this book. But the scarcity of material, the ultimate prevalence of the Semites over the Sumerians, and possibly the inferior



COLOSSAL FIGURES FROM KHORSABAD

Height about 16 feet.

(British Museum.)

culture of the long-lasting Kassite dynasty seem to have extinguished this form of art; and the remains of sculpture found, so far, in Babylonia are few and unimportant.

It is probable that the first form of sculpture used in Assyrian architecture was the representation of human-headed winged bulls or lions, and other symbolic figures

at the doors of palaces and temples. Those found by Layard at Arban have already been mentioned.¹ The comparative smallness of their size seems to indicate an early date, for some of the similar figures at Nimrūd and Khorsabad are more than 16 feet high. The mythology which such figures embody is originally Babylonian—a translation in stone of primeval legends. Some of these legends have become known through the tablets found in Ashurbanipal's library at Nineveh, in which ancient traditions of Lower Mesopotamia have been copied and preserved. They deal with the doings of gods and demi-gods. One of the latter named Gilgamesh is in some respects a prototype of Heracles; another, Eabani, is a sort of satyr, half man, half beast. Together they contend with and slay a winged bull employed by the goddess Ishtar (Astarte) to avenge an insult offered to her.² Other legends introduce good and evil spirits mingling together in marvellous epics, which are, however, mostly incomplete. These tablets embody the primitive traditions of both the Sumerian and Semitic populations, and there is a curious similarity in some of them to Biblical as well as classical traditions, as in the legends of the creation and the flood.

When these stories were first used as suggestions for architectural decoration it is difficult to say. In the description of Gudea's temple at Lagash³ figures of heroes and of lions and dragons are mentioned, and the statuary found at Tello and elsewhere lends some credibility to the picture; but nothing has been found to illustrate the use of sculpture architecturally until it appears

¹ See *ante*, p. 128.

² See G. Smith, pp. 171 *sq.*, though Gilgamesh there appears under another name. The scene of these legends is centred at Erech (Warka), whence Ashurbanipal is said to have brought them and had them copied for his library (*ibid.*, p. 207). See also Maspero, "Dawn," pp. 574-5.

³ See *ante*, p. 13.

many centuries later in the form of slabs of limestone or gypsum on which these strange symbolic forms stand as beneficent or deterrent guardians of the gates of Assyrian buildings. The source of this peculiar iconography is somewhat conjectural. The conception of an animal with a human head, and other creatures of a mixed nature, is common to the art of Egypt and the Aegean, and it may be assumed that the great Sphinx near Memphis must have become famous throughout all coun-



SMALL IVORY PLAQUE
(British Museum.)

tries in contact with Egypt, where it became the parent of numerous similar fabulous forms. Its adoption in Hittite art has already been noticed,¹ but there in several cases it appears with wings. This addition created a new type which is not Egyptian, though these wings applied to the solar disk constitute a very frequent Egyptian religious symbol. They are obviously the model of those which appear in the emblem carried by the priest-king at Iasily Kaya,² and they reappear in symbols of the deity in Assyrian, and from them in Persian, sculptured reliefs. In religious imagery they are constantly the attribute of a superhuman being, either beneficent or the reverse. An instance of their use in Jewish art occurs in the description of the winged cherubim of Solomon's temple, which were pos-



LIMESTONE FIGURE OF A
WINGED SPHINX SUP-
PORTING THE BASE OF A
DECORATIVE COLUMN
(British Museum.)

¹ See *ante*, pp. 74, 88, etc.

² See *ante*, p. 87.

sibly, like the metal-work, of Phoenician design.¹ Small ivory carvings representing winged female sphinxes may be seen in the Assyrian department of the British Museum. They are perhaps of the time of Ashurnazirpal III (884 B.C.), and though their heads are obviously Egyptian in style, their technique is Phoenician. A similar form of sphinx occurs on a tomb from Xanthus in the British Museum. These facts tend to show that this particular emblem was widely used throughout Anatolia and Syria. It may be supposed that originating in a mingling of Egyptian and Hittite art it assumed under the less humane culture of the Assyrians the somewhat coarse and stereotyped form in which it appears in their architecture.²

The source of the more graphic mural sculptures on the interior walls of the palaces may be more readily accounted for. In a mountain pass at Bavian, about 30 miles north-east of Mosul, have been found fractured remains of colossal human-headed lions; and carved in relief on a framed panel, about 24 feet by 30, on the rock at the side, are four figures representing two deities looking towards the centre, each with the figure of a king or priest facing him.³ A peculiarity to be noticed is that each of the deities stands with his feet on the back of a dog-like animal, just as is the case in Hittite sculptures.

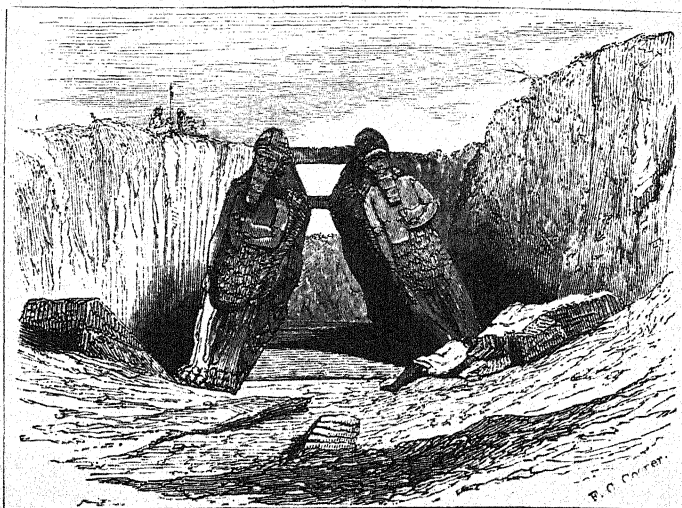
Still more remarkable is a rock relief at Malthai, about 40 miles north of Mosul, on the road to Lake Van.

¹ This work of Solomon's was probably about 950 B.C., and as the Book of Kings is supposed to have been compiled shortly after the destruction of the Temple by the Babylonians (588 B.C.), it may have been seen by the compiler.

² A variant of the ordinary human-headed lion or bull was found at the doorway of the large court of Ashurnazirpal's palace at Nimrūd, where the figure, like a Greek centaur, has a whole human torso with arms. See Layard, p. 337.

³ See P. and C., t. ii, p. 636.

Here is a long procession of figures representing, apparently, three groups of deities, all of whom are shown standing on the backs of animals. Each group is faced by a single figure, apparently in adoration. The general resemblance of this long procession, which is evidently



COLOSSAL FIGURES AT ONE OF THE ENTRANCES TO THE GREAT COURT
OF THE PALACE OF ASHURNAZIRPAL AT NIMRŪD

(Layard's "Discoveries," p. 337.)

of a religious character, to the rock sculptures in the sanctuary at Iasily Kaya leaves little room for doubt as to a close relationship between them.¹ This being the case a similar relationship may be assumed between the sculptured panels which line so many of the internal

¹ The date of these carvings is uncertain. It is suggested by Perrot that they were of the time of Sennacherib.

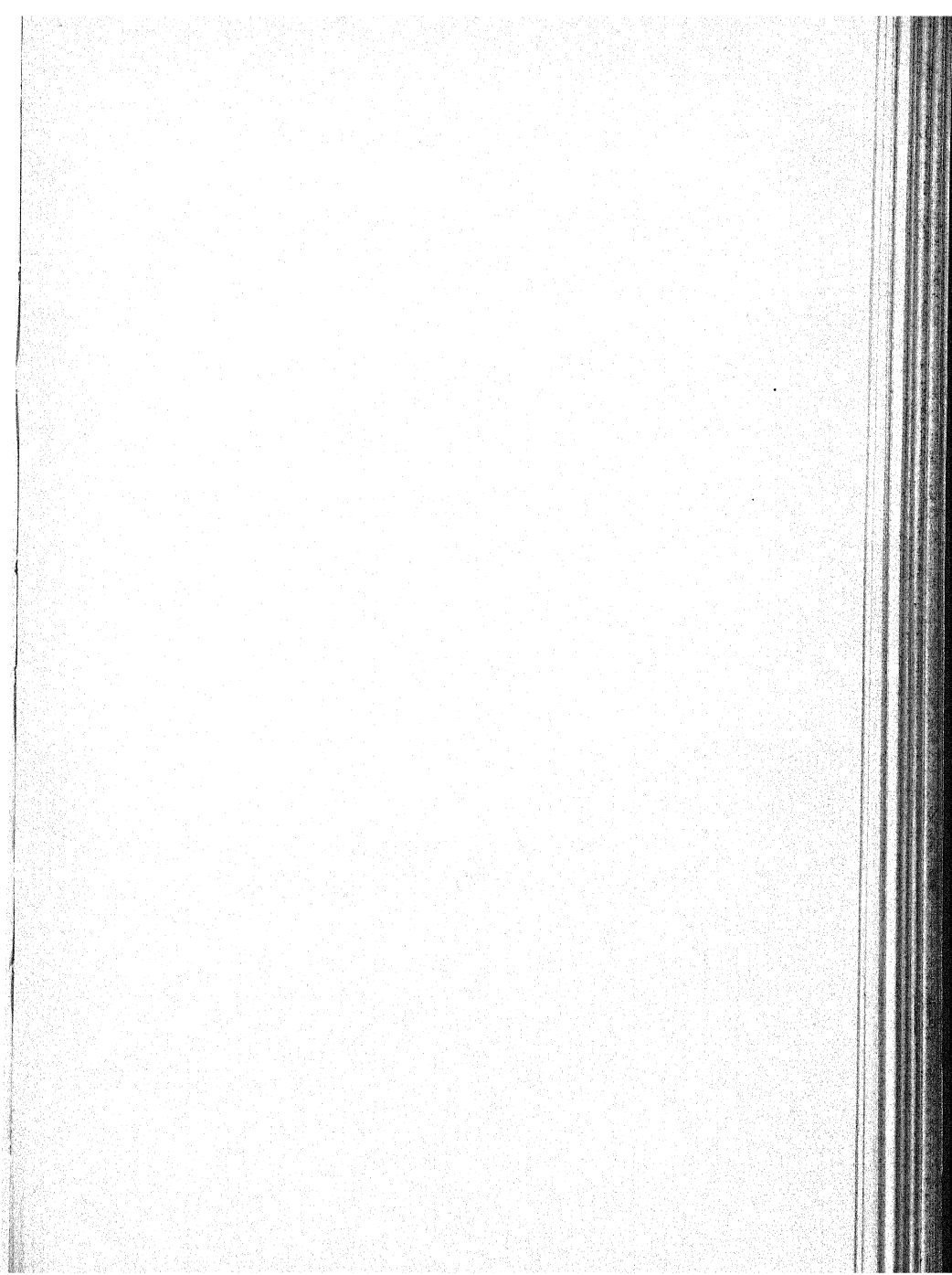
walls of Assyrian palaces and those which are found at the gates and on other walls of many Hittite buildings. It is true that some of the latest Hittite panels at Sakje Geuzi and Karchemish have unmistakable evidence of having been affected by Assyrian work, but this cannot be regarded as a proof of their Assyrian origin, because they are obviously related to much earlier Hittite work of the same character, as at Fraktin and Sinjerli; to say nothing of the subjects of those at Karchemish, which are utterly foreign to the Assyrian character. It seems to be a reasonable deduction from these facts—not, as is sometimes assumed, that Hittite art was largely an offshoot of that of Mesopotamia—but that the rather sudden predilection of Assyrian kings for the application of sculptured panels to architecture was acquired by them through their repeated expeditions into Syria and Cilicia, in which the focus of the later Hittite culture lay.

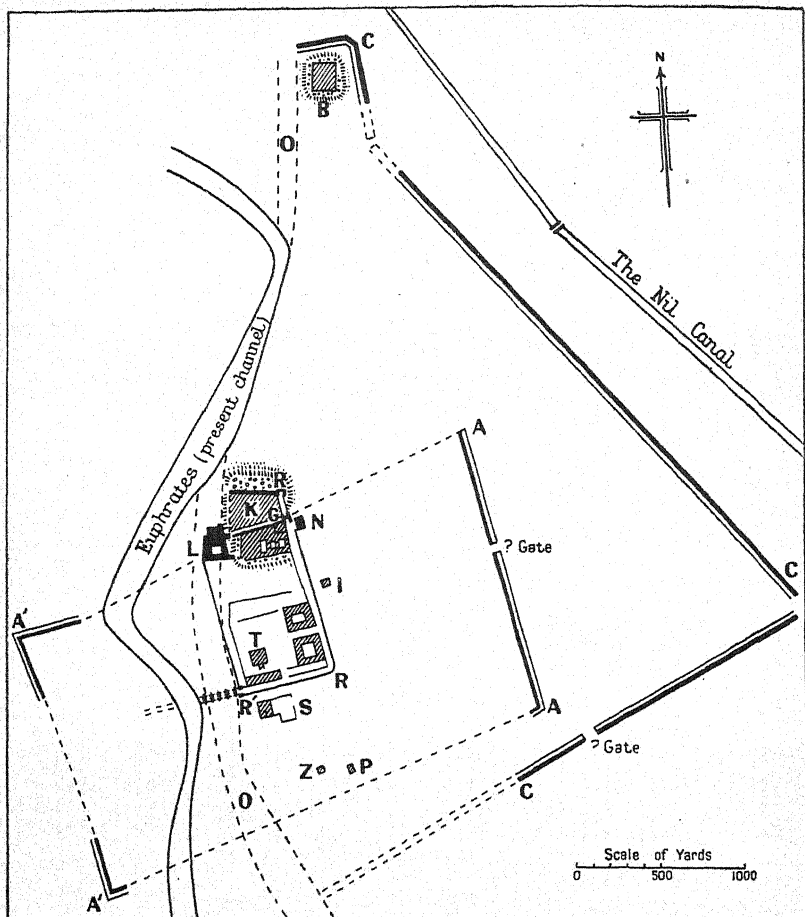
The king who seems most effectually to have promoted the development of Assyrian architecture was Ashurnazirpal III. Though of all these kings he appears as the most indomitable in war and the most savage in victory, he seems at the same time to have had a considerable appreciation of art. Coming to the throne soon after a long period of quiescence, if not decadence in his country, during which the Hittite culture had had an opportunity of reviving, he must have acquired, in the course of his military expeditions across the Euphrates, new ideas for the adornment of his reconstituted capital at Kalah (Nimrūd). The lion in the British Museum from the temple of Ninib which he built or restored at Kalah, notwithstanding that it preserves the absurd fifth leg, has in attitude and expression a surprising freedom from the stark conventionality of the winged colossi which continued to guard the portals of the palaces. Its general likeness to a similar

but smaller lion from Marash¹ is unmistakable. Similarly the bas-reliefs which skirted the interior walls recall the panels which he may have seen at Sinjerli, but though they have a certain stiffness in their drawing and an over-emphasis of detail which tends to disappear in the later reliefs, they already have a vitality in expression and a precision in execution which are not found in any contemporary work. For if the Assyrians were deficient in architectural invention, it cannot be said that they were lacking in technical ability. The bronze bands found by H. Rassam at Tel Balawat, which probably belonged to a palace built by Shalmaneser II, show their skill in repoussé metalwork. Shalmaneser also followed his father's example in building a palace, or perhaps two, at Kalah, but their decorations have been dismantled or adopted by later builders.² The same method of mural decoration was, however, followed by Sargon and the succeeding kings of his dynasty, with a continuous improvement in the rendering of details and in adherence to nature, until in the palaces of Sennacherib and his grandson, Ashurbanipal, at Nineveh, this peculiar art of Assyria reached its culmination.

¹ This Hittite lion is about 3 feet in length, it is one of a pair which were found placed on the wall of a later building as an ornament, but they evidently were originally in front of the flanking walls of a gateway. The modelling of the body is sacrificed to the pictographic inscription which covers it, but it establishes its genuine Hittite origin. Compare also the more archaic lions at Sinjerli. See *ante*, p. 96.

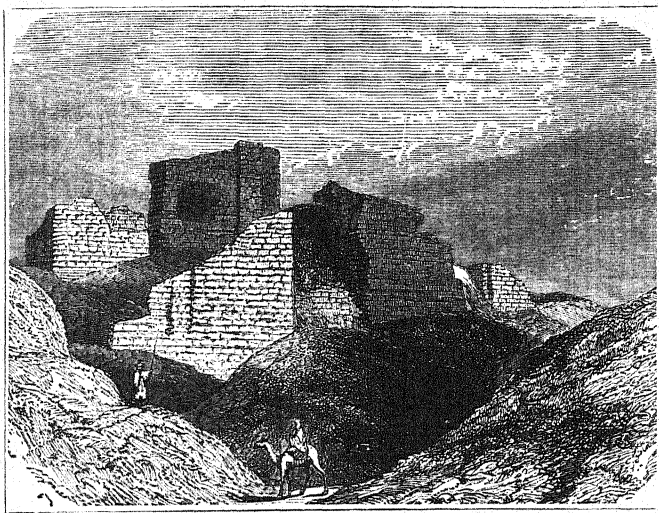
² See *ante*, p. 135.





SKETCH PLAN OF THE SITE OF BABYLON. (Based on Dr. Koldewey's Survey.)

- | | | | |
|------|---|--|---|
| A A | The inner city wall as built or restored by Ashurbanipal. | palaces enlarged or built by Nebuchadnezzar. | |
| A'A' | Walls on the west of the Euphrates which appear to complete the inner fortifications. | L | Western redoubt. |
| B | The mound Babil on which Nebuchadnezzar built. | N | Temple of Ninmach. |
| C C | The famous outer wall built by Nebuchadnezzar to defend the city on the east. | P | Temple of Ninib. |
| G | Ishtar Gate. | O O | The course of the Euphrates, <i>temp.</i> Nebuchadnezzar. |
| I | Temple of Ishtar. | R R | Processional street from the Kasr to the river gate and bridge at K'. |
| K | The Kasr, or citadel, containing two | S | E-Sagila; temple of Bel-Marduk. |
| | | T | E-Temenanki—the zigurat or tower of Babel. |
| | | Z | Unnamed temple. |



THE REMAINS OF THE KASR AS SEEN BY C. J. RICH, C. 1820
(Layard's "Discoveries.")

CHAPTER X

LATE BABYLONIAN ARCHITECTURE

ON the dissolution of the Assyrian empire its fragments were divided between Babylon and the Medes. Chaldaea and the southern portion of the old Assyrian kingdom, together with the western states, including Syria and Palestine, were appropriated by Nabopolassar without opposition from Kyaxares, whilst the latter incorporated Nineveh and all the Assyrian possessions on the north and east of the Tigris with his own domains.

During the decadence of Assyria, Babylon, whose people had, from its earliest days, been great in commerce and foreign trade, rapidly recovered its ancient

prosperity, and under Nabopolassar and his son, afterwards known as Nebuchadnezzar the Great, it became, though for a short time only, the leading power in Western Asia. In 608 B.C. Necho, the son of Psamtek, who was now Pharaoh, invaded Palestine and defeated Josiah, King of Judah, at Megiddo, but was soon afterwards defeated himself at Karchemish by Nebuchadnezzar who, on his father's death four years later, succeeded to the throne of Babylon. In the retreat and pursuit of the Egyptians the King of Judah, as a tributary of Babylon, had been left undisturbed, but a foolish attempt on the part of Jehoiakim, the next king, to withhold tribute led to the siege and capture of Jerusalem. In succeeding years Nebuchadnezzar overran the whole of Syria and Palestine; and Tyre, after a desultory siege of thirteen years, was finally reduced to vassalage. The contumacious policy of Zedekiah, who was now King of Judah, led to another siege and sack of Jerusalem, after which Zedekiah was deprived of his eyesight, and his people were transported as captives to Babylonia. The succeeding madness of Nebuchadnezzar is an episode made familiar by Hebrew history, but it was apparently not of long duration, and he lived till 562 B.C., having reigned for about forty-three years.

Three transitory reigns under Evil-Merodach, Neriglissar, and Labash Merodach (562-556) followed in the course of the next six years, after which the dynasty of Nabopolassar came to an end. The priests of Babylon thereupon took the matter of the succession into their own hands, and called to the throne a wealthy and pious citizen who is known in history as Nabonidus. In character he appears to have been an extraordinary contrast to the warlike monarchs who had for so many years held sway in Assyria and Chaldaea. The only characteristics in which he resembled his forerunners were his love

of building and his veneration for the gods of his country. But these propensities took a very different form, and in place of perpetually invoking supernatural aid and approbation in the destruction and torture of his fellow creatures, and in the construction of lordly pleasure-houses for his own habitation, he devoted his energies to repairing the damages caused by barbarian or domestic enemies, and in making good the dilapidations of time.

In the spirit of an archaeologist he restored many ancient buildings, recording the fact on inscribed cylinders with details based on traditions prevailing at the time. Temples at Sippar and Harran in Northern Mesopotamia, others at Ur and Erech in the south show the wide extent of his activities, and though the records left by him are untrustworthy in respect to dates, they have helped to verify facts in the early history of Mesopotamia. In Babylon itself he found little to do, for under Nabopolassar and his son the city had already been completely renovated. The former had built a palace for himself, apparently on the site of an older building of the Assyrian king Sargon, and had begun important public works, which were vigorously prosecuted by his successor.

During Nebuchadnezzar's long reign the city was so transformed as to become one of the wonders of the ancient world. For its legendary magnificence, however, the student has to trust in a large measure to the reports of ancient writers, for the remains of the city have suffered so much from the effects of time and weather, and from the alternate neglect and depredations of man that it is difficult to form a mental picture of its former splendour. Even its extent is a matter of doubt, for the ancient accounts differ considerably except in the facts that they are apparently much exaggerated and find no corroboration in the in-

dications that remain.¹ The most effectual attempt to explore the site thoroughly was made by the German Orient Society, for whom Dr. Koldewey spent the greater part of the years 1899 to 1912 in excavating with great labour a large portion of the deeply buried walls and buildings. The extent of the city, however, is so vast and the results of frequent rebuilding during 2,000 years of continuous occupation so complicated, that much more work will be required before many problems in its history can be cleared up. But numerous inscriptions have shown that the principal structural works carried out by Nebuchadnezzar were the building of the famous outer walls, the enlargement or building of two palaces on the central mound or citadel, now known as the Kasr, the construction of a fortress and palace represented by the mound called Babil at the northern extremity of the outer wall, the rebuilding of a great propylaeum called the Gate of Ishtar at the north-east angle of the citadel, and the reconstruction of E-Sagila, the chief temple dedicated to Bel, with its adjacent zigurat, E-Temenanki. He also raised and repaired the grand processional road which, starting from the citadel, passed through the Ishtar Gate and was continued in a straight line southwards to

¹ The walls of the city are said to have formed a square, divided diagonally from north to south by the Euphrates. Herodotus (i, 178) gives the total circuit of the walls as 480 stadia (about fifty-five miles), and the height as 200 royal cubits (341 feet), which is obviously absurd. Diodorus (ii, 7), on the authority of Ctesias (*c.* 400 B.C.), makes the circuit forty-one miles, and Strabo, who apparently took his information from Diodorus, nearly forty-two miles. Nothing has been found by modern explorers to warrant these fabulous statements. It appears probable from Dr. Koldewey's plan that the inner city walls may have formed an oblong, bisected diagonally by the Euphrates, as indicated on the plan, p. 172, but as Nebuchadnezzar in an inscription says expressly that his new wall was intended as a protection from the east, it seems unlikely to be found on the west side of the river. See Koldewey, p. 6.

E-Sagila, where it turned westward to the bridge across the Euphrates which, at that time, ran closely along the western sides of Babil and the Kasr.

The existing remains of the outer wall enclose, with the Euphrates, a nearly right-angled triangle, and if the city formed as ancient writers state, a complete square, it must be assumed that there was a similar triangle on the west side of the river. Of this, however, there are no indications, nor have the remains of any monumental buildings been found on the farther bank, though the existence of a bridge with piers of brick and stone implies a close connexion between the two sides.

The mound Babil, the only portion which preserves the original name of the whole, stands like a massive redoubt at the extreme north. It was partially examined by one of the first explorers, Rich, and forty years later (*c.* 1850) by Layard, but their investigations were of a merely tentative character. Dr. Koldewey, however, has shown satisfactorily that it was the site of a palace built by Nebuchadnezzar, based on a substructure 60 feet high, and containing many courts and chambers.¹ But there are signs that it was altered and occupied, under Persian and later rulers, and the facts that the mound was subsequently used for interments, and that in modern times it has been extensively quarried for bricks, have interposed almost insuperable difficulties in the recovery of the details of the original building.²

The mounds which represent the outer wall lie close to the northern and eastern sides of Babil and then bear away to the south-east in a straight and continuous line for a little over two miles. The wall then turns very nearly at a right angle and is continued in a south-west direction for a little more than a mile and must originally have extended for another three-quarters of a mile to the

¹ Koldewey, pp. 10-12.

² Layard, p. 502.

Euphrates. The wall itself, of which only small portions have been examined, consists of an inner wall of crude brick about 23 feet thick, with solid towers placed across it at intervals of about 55 feet. This was older than the outer wall, which was constructed of burnt brick about 40 feet in advance of the other, and was about $25\frac{1}{2}$ feet thick. The space between the walls was filled up and a roadway about 86 feet broad was constructed, along which it would be possible, as the ancient accounts state, for a four-horse chariot to turn, or for two to pass each other. In front of all was a fosse with a revetment of burnt brick about 10 feet thick.

At a considerable distance within this great work of Nebuchadnezzar's are the remains of another wall which appears to belong to an earlier boundary of the city, rebuilt or repaired by Ashurbanipal of Assyria (*c.* 650 B.C.). It is represented by a straight, flat-looking mound which begins about 2,000 yards to the south of Babil and runs in a straight line slightly south-east for about a mile. It was found to consist of two crude brick walls, the outer one on the east being 12 feet thick and the inner 21 feet with an intervening space of $23\frac{1}{2}$ feet. Both the walls had solid turrets at short intervals. From an inscription of Ashurbanipal found in the interval it is supposed that this is the fortification which was known as Nimitti-Bel.¹

About a mile and a quarter south of the mound Babil is another larger eminence known as the Kasr. It was the citadel of Babylon, and at its southern end was the palace of Nabopolassar, which was afterwards reconstructed and enlarged by Nebuchadnezzar. It falls into three divisions—the southern citadel, which was probably the site of the first fortified city; a section north of this described by Koldewey as the central citadel, and

¹ Koldewey, pp. 31, 32.

the most northerly portion designated as the northern citadel. This last section was somewhat isolated by a deep valley on its south side, and a moat, fed from the Euphrates, on the north. It was further fortified on that side by a stone wall composed of immense blocks of squared limestone, above which was a wall of burnt brick. The excavations have not yet revealed any important houses in this portion of the Kasr.

The central division or principal citadel gives evidence of special activity in building on the part of Nebuchadnezzar. The occurrence of a very massive wall across its centre seems to indicate that he at first intended to fortify and utilize only the southern half, but this design was changed, and the whole area was levelled. On this surface he built up foundation walls which are still in parts 50 feet high, filling up the intervening spaces with rubble. On the platform thus formed he built a magnificent palace, and though the excavation so far has been very partial, the remains found are enough to show the splendour of its decoration. Some are fragments of mural tiles enamelled with designs in beautiful blue paste, similar to lapis lazuli. The subjects represented were composed in separate pieces, each of which contained only a small part of the whole. Paving-stones of white and mottled sandstone, limestone, and black basalt were used in the courts, and in the north-east corner fragments of colossal figures of animals suggest that the entrances were flanked by sphinx-like figures similar to those which guarded the portals of Assyrian palaces.¹ In the same quarter was found a stele with a relief of a Hittite deity, assigned by Dr. Koldewey to the tenth century B.C.; and another containing four figures in sunk relief with a long inscription in neo-Babylonian script which appears to have come from the neighbourhood of the river

¹ Koldewey, pp. 158-9.

Chabour in north Mesopotamia, and is probably of the seventh century B.C.¹ In the same quarter is the huge basalt figure, rudely carved and possibly unfinished, of a lion trampling upon a prostrate man, which has been mentioned by various travellers. These indications of the use of monumental sculpture are noteworthy because there is little evidence that the later Babylonians had any feeling for this form of art. Their genius seems rather to have led them to a development of the application to architecture of the plastic material which was their natural medium, in the form of highly decorative coloured and enamelled tiles.

The remaining portion of the Kasr, described by Koldewey as the southern citadel, is that which has so far been most thoroughly explored. It is probably the oldest inhabited part of this acropolis of Babylon, and it was here on its eastern half that Nabopolassar had built a new palace for himself. Nebuchadnezzar was not satisfied with this, and proceeded to double its size by building another at a higher level on its western side, and amalgamating the two by raising the floor of the older building. The principal entrance was on the east side, from the great Processional street. At the south side of this entrance, at a lower level, there is a length of old walling in which there is an arched doorway of some interest. As its threshold is 20 feet below the level of the street, which had been raised several times, the doorway had been blocked up. The arch originally had three circular courses, of which only the two upper ones remain. They are constructed with ordinary tiles, with joints of bitumen, and each has a course of flat tiles between it and the next curved course. The uppermost is so imperfect that it has a triangular gap at the apex, filled up with chopped brick. Moreover, the

¹ Koldewey, p. 164.

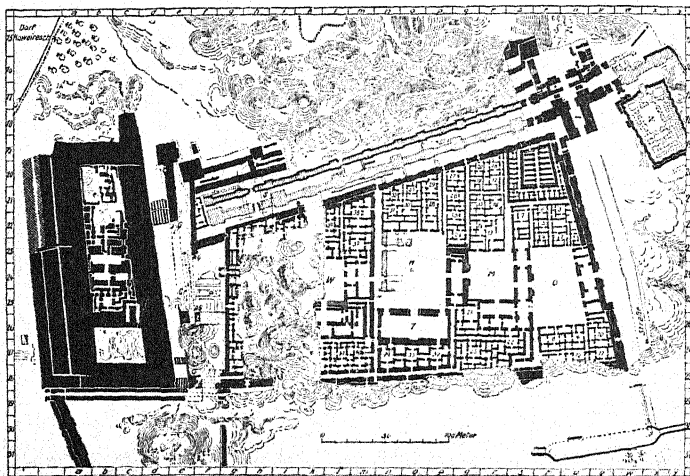
two upper arches are merely segments of a circle springing from above the level of the imposts. The faulty construction of this door-head and some peculiarity in the wall show that the date is long antecedent to the time of Nebuchadnezzar, and suggest that this piece of walling may be a relic of the old city which was destroyed by Sennacherib early in the seventh century B.C.

The southern citadel had been fortified by Sargon of Assyria, but of this work the only remains are some deep foundations on the north and possibly the old wall on the east above described. About 72 yards in front of the actual north boundary of the citadel are the remains of a massive wall of burnt brick about 23 feet thick. According to an inscription on a cylinder found in the citadel this wall was originally constructed by Nabopolassar round all four sides of the city,¹ and was known as *Imgur-Bel* (the grace of Bel), a name which appears to have been previously used by Sargon. It was, however, rebuilt on the north side by Nebuchadnezzar, whose name appears on all the bricks of the upper portion. This wall formed the embankment of the later moat constructed by Nebuchadnezzar, and about 41 yards to the south of it he raised two parallel walls of crude brick. The inner one of these was about 20 feet thick; the other, ten yards in advance of it, was about half that thickness, and there was a paved pathway between them. Each wall was reinforced with solid oblong turrets projecting both in front and rear, but placed alternately along and across the line of wall. Between this fortification and the moat, and returned round the west side of the citadel, are the foundations of several older walls, one of which is known from the inscriptions as the *Arachtu* wall, probably from the local name for the Euphrates, of which it must have formed

¹ Koldewey, p. 136.

an embankment when the river flowed close by the city. It appears to have been prolonged some distance to the south, as is shown by bricks with Nabopolassar's inscription.¹

The south wall of the palace, where it skirts the group



THE SOUTHERN CITADEL AND NEBUCHADNEZZAR'S ENLARGED PALACE ON THE KASR, WITH THE ISHTAR GATE AND TEMPLE OF NINMACH ON THE NORTH-EAST, AND THE REDOUBT ON THE WEST

The foundations in the north-east angle of the palace are the substructures of the celebrated hanging garden.

(Copied by permission from the plan in Koldewey's "Babylon.")

of chambers behind the throne-room, is peculiar in that its exterior face is built with vertical offsets so that its horizontal section would have a saw-like outline. This form may have been adopted in this case because the wall is not strictly parallel with the internal walls. But

¹ Koldewey, p. 141.

this feature is in fact characteristic, as Dr. Koldewey remarks, of the whole of secular Babylonian architecture of the later period, and arises from the technique of an early art. It is found in the walls of Mycenaean buildings, as at Tiryns and the sixth Troy, and even in Egypt at Abydos and Philae.¹

On the west of the citadel, and apparently based in the former bed of the river, is a massive quadrangular building about 200 yards in length from north to south, with strongly built foundation walls from 70 to 80 feet in thickness. It was probably Nebuchadnezzar's latest addition to this southern part of the citadel, and is referred to by him in a cylinder found elsewhere as follows: "In order that no harm should happen to the stronghold of E-Sagila and Babylon I caused a great fortification to be built in the river of bitumen and bricks. I raised its foundation on the depths of the water, its top I exalted like the wooded mountains."² The building was connected with the citadel by three short causeways intersected by sluices which allowed the water to flow beneath them.³

The interior arrangement of this vast palace, as it was recreated by Nebuchadnezzar, with its extraordinary complexity of many-chambered dwellings, it is impossible to describe in detail. The immense throne-room, 170 feet long by 56 feet wide, the scene, possibly, of Belshazzar's last feast, is at the south side of the prin-

¹ See Dörpfeld, "Troja u. Ilion," p. 120. The most remarkable example is at Goulas or Gla in Boeotia. It seems possible that it may have originated as a simpler substitute for the reinforcement of walls by buttresses.

² Koldewey, p. 145. The last sentence suggests that the top may have been planted with trees, as appears to have been the case in some Assyrian fortifications.

³ Between the wall of the palace and this western fortification Dr. Koldewey found the remains of a Persian building, which is referred to later. See Koldewey, p. 128, and *post*, p. 224 note.

cipal courtyard. The position of the throne is shown by a niche in walls facing the entrance in the north wall. Its exterior façade was brilliantly decorated with a surface of enamelled tiles fancifully depicting in light blue, dark blue, and amber pigments the pillars and frieze of a colonnade. Though there is absolutely no evidence in the palace of the use of constructive columns the form of the voluted capitals shows that the builder was not unacquainted with architectural features prevailing in more western regions.¹

In some respects the most interesting section of the palace is a quadrangular enclosure in the north-east angle, measuring, though it is not an exact rectangle, about 45 yards by 41. It is described by Dr. Koldewey as follows: "Fourteen cells, similar in size and shape, balance each other on the two sides of a central passage and are surrounded by a strong wall. Round this slightly irregular quadrangle runs a narrow corridor, of which the far side to the north and east is in large measure formed of the outer wall of the citadel, while other ranges of similar cells abut on it to the west and south. In one of these western cells there is a well, which differs from all other wells known either in Babylon or elsewhere in the ancient world. It has three shafts placed close to each other, a square one in the centre, and oblong ones on each side, an arrangement for which I can see no other explanation than that a mechanical hydraulic machine stood here, which worked on the same principle as our chain pump, where buckets attached to a chain work on a wheel placed over the well. . . . The ruin lies completely below the level of the palace floor, and is the only crypt found in Babylon. It was approached from the upper passage by steps of

¹ A similar form of capital is found at Tarmossos in Cyprus, and a variation of it in Lesbos, and at Neandria in the Troad. See "Hellenic Architecture," chapter x.

crude brick faced with burnt brick that led into one of the southern chambers."¹ All the chambers were vaulted with round arches which consist of several courses separated from each other by flat tiles exactly as in the arched doorway below the east wall of the citadel.

Further observation of the ground-plan shows that the central chambers, with the same span as the outside row, have thicker walls. The only explanation for this must be that the former were more heavily weighted than the latter. "Stone was used in the building, as is proved by the numerous fragments, shapeless though they now are, that are found in the ruins. . . . There are only two places where hewn stone occurs in any large quantity—in the vaulted building and on the north wall of the Kasr, and it is remarkable that in all the literature referring to Babylon, including the cuneiform inscriptions, stone is only mentioned as used in two places, in the north wall of the Kasr, and in the hanging gardens."

These extracts give the grounds on which Dr. Koldewey concludes that this singular structure was the foundation of that celebrated "hanging" or artificially supported garden which has contributed so much to the fame of ancient Babylon. The accounts given by ancient writers agree in a general way with the evidence of these remains, though some, such as Strabo and Ctesias, speak of the sides of the garden as being each about 400 feet in length. In view of the exaggeration as to the size of the city which is attributed to them, it seems needless to give weight to such discrepancies.

In close connexion with both of Nebuchadnezzar's palaces on the Kasr was the great processional road—the *Via Sacra* of Babylon—which led from the north

¹ Koldewey, pp. 91-93.

of the central citadel along its eastern side and proceeded in a straight line nearly due south to the metropolitan temple of Bel-Marduk, known as E-Sagila. Its northern portion was enclosed on each side by a high wall about 23 feet thick, and at the north-east angle of the southern citadel it passed beneath a magnificent double portal known as the Gate of Ishtar. This gateway as reconstructed by Nebuchadnezzar had towers and lateral projections which were in line with and met the two crude brick walls on the north of the citadel; and in conjunction with the walled roadway it not only formed an important element in the eastern defences of the whole acropolis, but it was also an imposing propylaeum giving access to the eastern entrance of the older palace. The pavement of the road consisted of large flags of limestone which must have been brought from a distance, but its level had been raised, not for the first time, to match the new level of Nabopolassar's reconstructed palace, and the excavation showed a later repaving under Persian rule. The most striking feature about its remains is the decoration of the side walls, which were faced with brilliantly coloured and glazed tiles so moulded as to represent, when set together, a procession of fierce-looking lions on either side. The figures are about $6\frac{1}{2}$ feet long and in shape are all alike, the tiles being moulded from the same patterns, but the colour of the hair was either red or yellow, which was brilliantly enhanced by a background of blue. It is calculated that there were about sixty on each side, and as they all faced towards the north they were, no doubt, intended to impress with awe all who approached the Ishtar Gate from that side.

The gate itself was remarkable both in its form and its fictile decoration. On plan it appears as two gates, one in front of the other. One who approached it from the north would see a doorway, probably with a semi-

circular arch, between two tall rectangular towers, within which was an oblong empty space about 12 feet from front to back, but nearly six times as long including the area of the towers, from side to side. In the back wall was an opening which led through a nearly square compartment to another doorway also flanked by massive towers. These two doorways with towers were in line with the crude brick walls with which Nebuchadnezzar protected the north side of the palace, and were connected with them by wings of baked brick in which there were smaller side doors. Beyond the southern wall the Ishtar Gate projected in the form of a long chamber with enormously thick side walls which give the impression that it was covered by a barrel-vault, at the south end of which there was no doubt another door. The wing-walls on the west of the gate were matched by similar ones with side-doors on the east, and these are supposed to have been extended to the inner town wall above described (p. 178).

The walls and towers of the Ishtar Gate afford another example of the remarkable mural decoration used in the processional street. On a ground, for the most part faced with enamelled bricks, are successive rows of bulls and dragons, a line of bulls being alternated with one of dragons. These figures are $3\frac{1}{2}$ feet high and are composed in thirteen courses of bricks. There are about eleven courses between each row of figures, the intermediate spaces are filled with coloured bands of aster-like flowers. The towers appear to have been about 50 feet high, but the level of the ground was gradually raised to such an extent that much of the lower parts with their decorations must ultimately have been concealed. From the figures which still remain *in situ* and numerous scattered fragments it is estimated that there may have been between six and seven hundred disposed in various parts of the towers and walls. The animals

are, of course, emblematical, the lions of the street being the symbol of the goddess Ishtar, the bull that of the weather-god Ramman, whilst the association of the dragon with Bel or Marduk is familiar in Chaldaean legend.

At a short distance behind the wall which forms the east wing of the Ishtar Gate are the foundations of a temple dedicated to Ninmach. It stood on a platform which had been artificially raised to the level of the southern citadel and the Procession street, but like the latter, the floor of the temple had been raised at least three times since the time of Ashurbanipal, who is recorded to have founded or rebuilt the temple.¹ The walls, like those of all other Babylonian temples, were built of crude brick, which had been covered with white marble-like cement, and their only decoration seems to have been turrets or buttresses at intervals, and the vertical rebated channels which are found in earlier temples but not in military architecture. They are supposed to have been finished at the top with the almost universal stepped crestring. The entrance, flanked by two towers, was at the north end, and led through a vestibule into an open court, at the farther end of which was an ante-chamber through which the sanctuary at the extreme south end could be seen. The postament, or slightly raised platform for the image of the deity, is still *in situ*. There were side-chambers at both ends of the court, and narrow rooms at each side, and a curious feature of the plan consists in long and narrow corridors just inside the east and south walls, the purpose of which is not evident. Possibly they contained wooden stairs or ramps leading to the roof. In this peculiarity and in the general arrangement of the plan the temple is similar to others in Babylon of that period, and shows a

¹ Koldewey, p. 60.

development on earlier plans which may have been due to some foreign influence. There is a temple at Dendera on the Nile which has similar mural corridors.¹

Three other temples have been completely excavated and are described in detail by Dr. Koldewey. From their widely differing ground-plans it appears that their internal arrangement was more complex than that of E-Ninmach. They each have more than one entrance, and seem to have included official dwellings or more than one shrine. But they are all alike in having towered gateways and buttressed walls, generally relieved by the vertical rebated channels, and all possess the unexplained passages behind some of the walls.

The most important of the temples of Babylon was that of Bel-Marduk, the tutelary deity of the State. It lay near the river, nearly half a mile south of the Kasr, and its area was almost a square, nearly 87 yards on the north and south, and 94 yards on the sides. There was an entrance at the centre of each side, the principal doorway on the east being preceded by a very wide and walled forecourt, which extended on the south side considerably beyond the southern wall of the building.² The actual temple was entered through a towered doorway and vestibule leading into an inner court. On the opposite side of this court was an imposing façade with a central door and flanked towers which led to the principal cells. As this portion has not been excavated it is not possible to show its plan; but on the north and south sides of the courtyard there appear to have been subor-

¹ The temple at Dendera, as it exists in a fairly complete condition, is of late Ptolemaic date; but it is on the site of a much earlier building, to which its foundations are assigned. See "Architecture of Ancient Egypt" (Bell), p. 178.

² It is to be noted that the orientation of none of these temples was with the angles to the cardinal points as was usual in older monuments of Mesopotamia.

dinate sanctuaries, one of which was dedicated to the god Ea.¹

The turrets or pilasters with which the walls were reinforced differ from those in other temples, for in some cases they have at each side a flanking pilaster of less projection so that they appear as triple turrets adding much to the architectural effect.

It is difficult to realize from the dilapidated remains of these buildings the magnificence of Babylon in the days of its greatest but short-lived prosperity. Nebuchadnezzar, in one of his numerous inscriptions, speaks of "Silver and gold, precious stones, bronze, or cedar-wood . . . the product of the mountains, the wealth of the sea I brought to my city of Babil . . . and deposited in E-Sagila. . . . The chamber of Marduk, lord of the gods, I made to gleam like the sun. . . . The same chamber . . . that an earlier king had furnished with silver, I clothed with shining gold, a magnificent adornment."² A few years later Neriglissar speaks of having adorned the face of the doorways with eight bronze serpents standing upright clothed with a covering of shining silver. These were no doubt figures of the dragon of Bel standing one on each of the side balustrades of the four doors of the temple.

Adjacent to this building, and closely associated with it, was the far-famed tower or zigurat known to the Babylonians as E-Temenanki. It stood in the midst of a spacious enclosure or temenos, about a quarter of a mile square, the south wall of which was about 100 yards north of E-Sagila. The main entrance to the enclosure was on the east side, between two large square buildings of crude brick each of which consisted of an open court surrounded symmetrically by narrow chambers. Their plan suggests that they were store-houses, or possibly

¹ Koldewey, p. 204.

² *Ibid.*, p. 211.

temporary lodgings connected with the cult. A series of larger private houses built against the south wall may have been dwellings for priests. The zigurat, now represented by a mass of crude brick from which the outer casing of burnt bricks has been carried away, stood somewhat towards the south-west of the enclosure. It is supposed to have been destroyed by Sennacherib, and, according to inscriptions found on scattered bricks, it was rebuilt by Esarhaddon when he restored the city which his father had ruined. On the south side are the remains of a stair which led to the upper platform of its base.

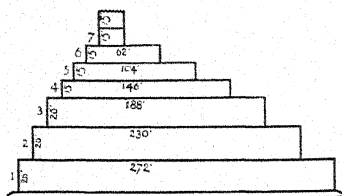
The description of Herodotus,¹ of the Temple of Belus, which had eight graduated stages, with a winding pathway leading to the top, is no doubt intended for this building. The dimensions of the temenos given by him are fairly accurate, but those of the tower are greatly exaggerated. To what extent his account of the form of the building can be relied upon, or in fact, whether he ever actually saw it, must remain a matter of doubt.

The processional street from the citadel ran close along the eastern side of Etemenanki, and at its south-east angle turned to the west and continued along the south wall across the Euphrates which, at this time, ran southwards at about 50 yards from the temple enclosure. It was embanked by a strong river wall with turrets at intervals of 21 yards in which, at the point where the road impinged upon it, there was a gateway giving access to the bridge. The remains of the bridge consist of seven massive brick piers, paved with stone at the top, and shaped like boats with the bows pointing upstream. They were no doubt connected by a roadway supported on heavy timbers. The bridge is described by Nebuchadnezzar as the work of Nabopolassar. The river-wall

¹ Bk. i, 181.

appears to have been built or rebuilt by Narbonidus, though there must have been some earlier wall as the gateway dates from the time of Nebuchadnezzar.

Apart from the city of Babylon the greatest architectural monument of Nebuchadnezzar's reign was the lofty zигurat at Borsippa, now known as Birs-Nimrūd, about eleven miles south of Babylon on the west side of the Euphrates. In its present ruinous condition it is still the highest building in Mesopotamia. A vast heap of broken and partly vitrified brickwork which concealed such walls as remained, surmounted by a shattered



SUGGESTED FORM OF BIRS-NIMRŪD

From the description and measurements of Sir H. Rawlinson (J.R.A.S., vol. xviii).

tower, was all that was seen by Sir H. Rawlinson in 1854 when he made the first serious attempt to explore it, and he was not in a position to carry out his investigations completely.¹ He cleared the south-east front of one of the stages—the third from below—and found evidence which led him

to conclude that it had been a graduated tower of seven stages each faced with burnt or calcined bricks of a distinctive colour. On two of the lower platforms he found traces of what appeared to be small chambers built out against the wall of the next stage, which he supposed might be used by the priests serving the temple. He found also, as Taylor had found at Muquayar, cylinders buried in two of the angles of the third stage, with a long inscription, part of which he translates as follows: "The building named the stages of the seven spheres, which was the tower of Borsippa, had been built by a

¹ See J.R.A.S., vol. xviii, pp. 30, 31.

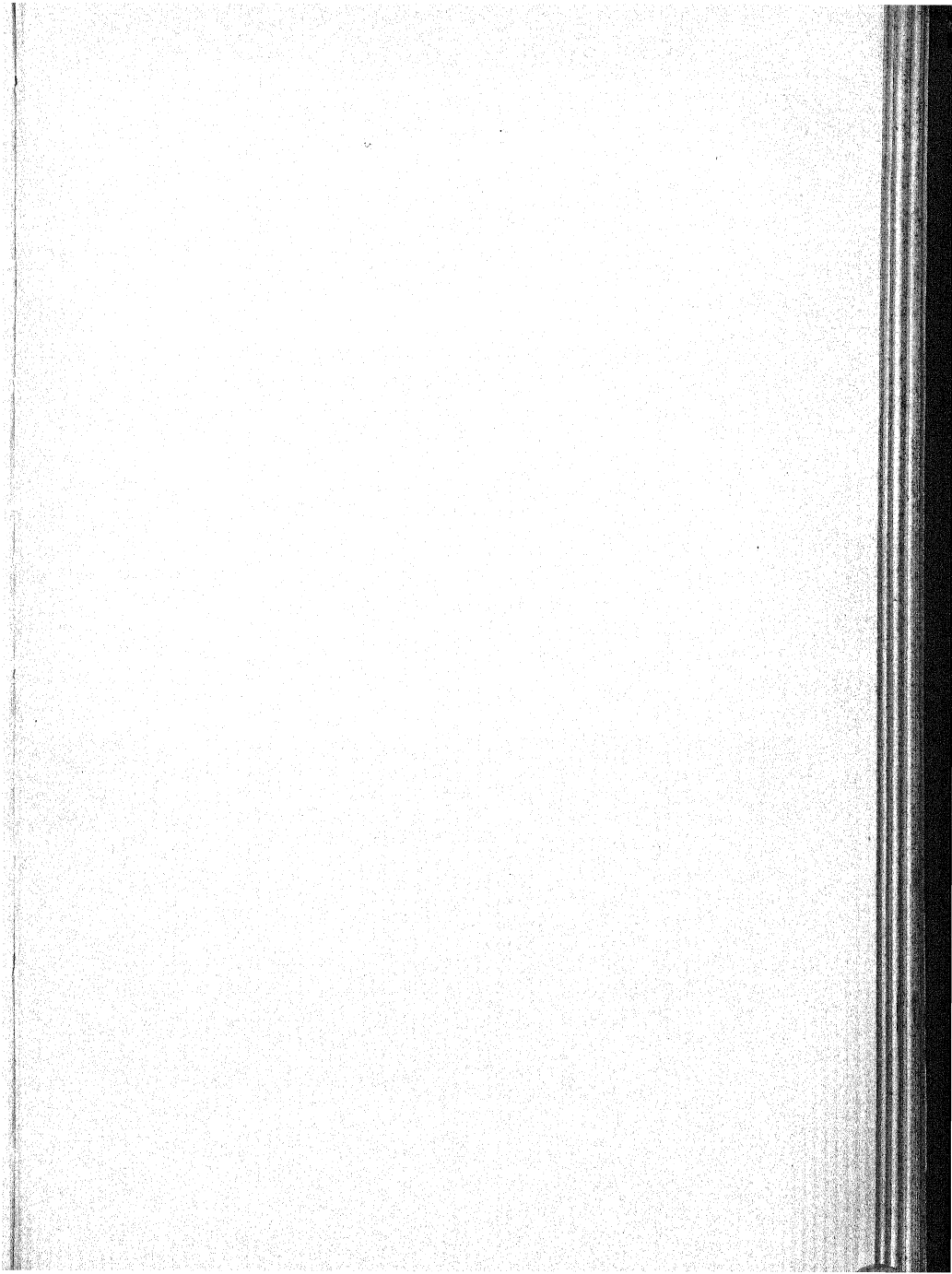
former king. . . . From the lapse of time it had become ruined . . . the casing of crude brick had bulged out and the terraces of crude brick lay scattered in heaps. Merodach, my great lord, inclined my heart to repair the building. I did not change its site nor did I destroy its foundation platform. . . . I strengthened its foundation-platform . . . and I placed a titular record in the part I had rebuilt. I set my hand to build it up and to finish its summit."¹ Though Sir H. Rawlinson's observations have not been universally accepted, their correctness has been strongly corroborated by more recent excavations at Tel Oheimer (the ancient Kish).² Here a similar zigurat apparently of seven stages, the total height of which was estimated at 180 feet, shows remains of chambers on the lower stages. An inscribed brick indicates that it was at one time rebuilt by Samsuiluna of the first Babylonian dynasty (? c. 1900 B.C.), whilst another stamped brick showed that it was again rebuilt, like that at Borsippa, by Nebuchadnezzar.

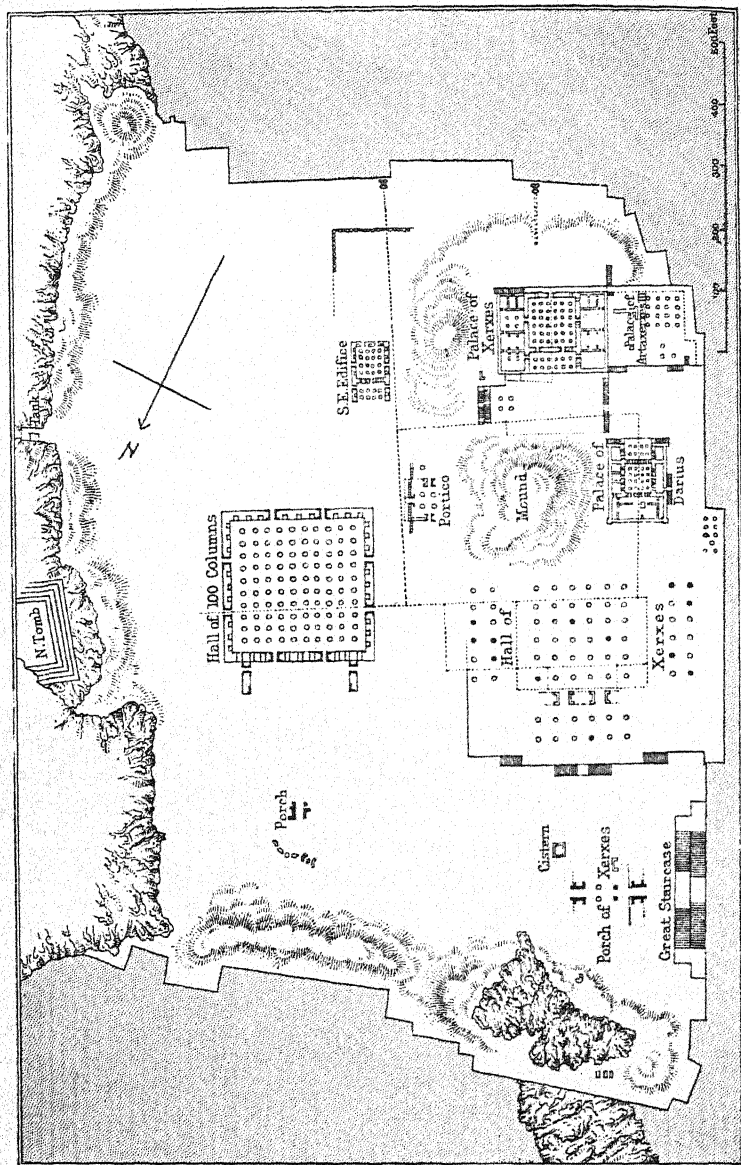
Six years after the death of Nebuchadnezzar the dynasty of Nabopolassar came to an end. Four of these years comprised the reign of Neriglissar, whose work at E-Sagila has been mentioned. When Nabonidus was called from a private station to occupy the throne he devoted himself, as has been said, to the restoration of

¹ The diagram, which is drawn exactly in accordance with Sir H. Rawlinson's report, shows what he supposed to be the original form of the building. The dimensions of the second and third stages were ascertained by measurement. The height of the lowest, which was partly buried, is assumed to be the same. The heights of the four upper stages were only roughly estimated by counting the layers of brickwork where they were visible; but it is to be noted that the total height which they give agrees very closely with a trigonometrical calculation made by Captain Jones, who was at that time engaged on a survey of Babylon. See J.R.A.S., vol. xviii, pp. 14 *sq.*

² See *ante*, p. 10, note. The excavation is due to the Weld-Blundell (Chicago) Expedition.

temples throughout Babylonia. His zeal as a pious antiquarian was remarkable, but such a character was ill calculated to govern a restless people long accustomed to the strong rule of a king like Nebuchadnezzar, who combined military talent with a love for magnificence which was continually shown in the adornment of his capital. Nor were his archaeological tastes likely to recommend him to a populace whose serious occupations were almost entirely commercial. Even his piety took a form which alienated his original supporters, the powerful priesthood. For in his care for the gods of the outlying cities of Chaldaea, he brought their images for safety to Babylon and thereby threatened the supremacy of the great local deity, Bel-Marduk. All these causes led to an estrangement between ruler and people which ultimately hastened his downfall. For in the meantime a new power which was soon to alter the destinies of the whole of Western Asia had entered on the scene.





PLAN OF PERSEPOLIS

Reproduced by permission from Lord Curzon's "Persia."

CHAPTER XI

PERSIA AND PERSEPOLIS

IN the middle of the seventh century B.C. an Aryan people, allied in race and language to the Medes, were established at Anshan, a country on the east of Elam. The people were known as Persians, and their first recorded chief was Achaemenes. His son, Teispes, probably taking advantage of the overthrow of the Elamites by Ashurbanipal in 647, invaded Elam, and taking possession of their chief town Susa created the kingdom of Persia.

The Medes, under Kyaxares, had greatly extended their dominions since the fall of Nineveh. They had penetrated Asia Minor, until they came into contact with Alyattes, King of Lydia, who was now the chief potentate in the west. The contest which ensued resulted in a treaty by which the river Halys became the boundary between the territories of the Medes and Lydians.

When, early in the sixth century, Cyrus became king of Persia, Kyaxares' son, Astyages, who must have been very old, was king of Media. According to Herodotus he was, by his daughter's marriage with a Persian, the grandfather of Cyrus. The causes which led the latter to attack him are unknown, but it is easily conceivable that Cyrus found the Medes an obstacle to his own ambitions. In any case he invaded Media, defeated and deposed Astyages (550 B.C.), and was accepted by the

people as their ruler. Thus, at one stroke, he laid the foundations of the Persian empire.

Croesus, who had now succeeded Alyattes as King of Lydia, saw reason to distrust this change on his eastern frontier. The story of how he was induced by an ambiguous oracle to attack Cyrus, and thereby destroyed his own empire, is familiar to readers. The result of this decisive event was that Cyrus advanced to the Aegean coast, and after subduing, in the course of three years, the Greek cities of Asia Minor, returned to his own country (c. 542 B.C.).

Babylon, however, still remained unconquered, though a Persian inroad through Elam had already given some warning of her impending downfall. The king, Narbonidus, did not reside in his capital, having probably resigned all personal government, and it was left to his son Belshazzar to interpret and verify the fatal writing on the wall. In the year 539 a Babylonian army met, and was defeated by, the Persian governor of Assyria, and after a siege of some months Babylon was taken, in the presence of Cyrus himself. The citadel held out for some time, but in the following year was taken by storm when Belshazzar apparently was slain. Narbonidus had died shortly before at Borsippa. Thus ended the last Babylonian empire, but the city escaped destruction, for the people who looked on Cyrus as a deliverer from a government which they had learnt to detest were content to become subjects of the all-conquering king.

This was the last great conquest of Cyrus. He died obscurely in 529 in a war against some frontier horde of Scyths or Parthians, and was succeeded by his son, Kambyzes II. Under him the conquest of Egypt, projected by Cyrus, was carried out. Psamtek III, who was now pharaoh, was removed and Kambyzes assumed the sovereignty. After the first punitive severities he

made some attempts to conciliate the religious susceptibilities of the Egyptians, but his territorial ambitions led him too far, and in attempting to conquer Upper Egypt, and occupy Nubia, which since the time of Tanutamon had been governed by native kings, he met with repeated disasters, and was at last forced to retreat. News of an insurrection in Persia in favour of a pretender who personated his murdered brother Smerdis hastened his return, but he died in Syria on the way home (522 B.C.).

Kambyses had no children, and the succession was claimed by Darius, the son of Hystaspes, a descendant of Teispes, the first king.¹ It was not without much trouble that he established himself on the throne, for in addition to the opposition of the supporters of the false Smerdis, insurrections broke out in various parts of the kingdom, including Babylon. But in the course of three years Darius had overcome internal foes and was at liberty to complete the subjugation of Egypt. In this he proceeded with more prudence than his predecessors and conciliated the people by claiming the support of Ammon, to whom he built a temple, a policy which was reversed by his weak and tyrannical son Xerxes.

It is unnecessary to enter further into the history of the Persian empire, because its chief incidents have been familiar in the literature of the world since the time of their occurrence. The attempts made by Darius and his son to subjugate Greece, and the heroic episodes

¹ The precise connexion of Darius with the royal house has been a matter of some doubt. His father, Hystaspes, was satrap of a northern province, but appears in Darius' inscription at Behistun to have been reckoned as a king. According to the genealogy tentatively adopted by Mr. Hall Hystaspes was a great-grandson of Teispes, and second cousin of Cyrus the Great. See "N. E.," pp. 553-554.

commemorated in the names Thermopylae, Marathon, Salamis, and Plataea, by which European Hellas was saved from slavery for many centuries, and its culture preserved as an heirloom for modern Europe, are part of the general history of our own civilization. The vicissitudes of Persia after its conquest by Alexander, and the rise of the later Sassanian empire, have an important place in the history of art, but are beside the aim of the present volume, which is mainly concerned with the architectural achievements of Darius and his son, and the relations which they have with the art which preceded them.

Compared with the great empires of Assyria, Babylon, and Egypt, which it conquered in succession, the Persian empire was a mushroom growth originating in the overthrow of the hated and decadent power of Assyria by Kyaxares the Mede: it absorbed in little more than 100 years nearly all that is now comprehended in the "Near East." Thrace and Macedonia succumbed without a struggle; Athens and Sparta almost alone defied the Persian conqueror, and ultimately frustrated his dream of universal dominion.

It is obvious that architecture, so far as it is distinctly Persian in character, must also have had a rapid growth. The early art of the Elamites, the Medes, the Persae, and the various smaller states and tribes which formed in combination the kingdom of Persia, had no doubt much in common with that of Mesopotamia, modified only by a more general use of stone. An inscription found in Susa, where the soil was alluvial, tells of the building of a temple of baked brick: it is probably of the time of that king of Elam (*c.* 2280 B.C.) who carried off the statue of Nana from Erech.¹ This statue was recovered by Ashurbanipal sixteen centuries later, and in the

¹ See E. Meyer, § 432.

inscription which records the fact he also says: "I broke the winged lion and the bulls watching over the temples, all there were. I removed the winged bulls attached to the gates of the temples of Elam until they were not."¹

The researches of De Morgan and his colleagues² have added little to these sidelights on the earlier art of Elam, but the discovery at Susa of various trophies transported from Mesopotamia—the most important of which are the stele of Naramsin, and that which contains Hammurabi's code of laws³—not only testify to the military power of the Elamites, but also suggest the probability that they followed may have the art of their western neighbours.

Whether Ekbatana, the ancient capital of the Medes, and afterwards the summer residence of the Persian kings, which, according to Herodotus, had seven concentric walls of different colours, is the same as that mentioned by Strabo appears to be doubtful.⁴ In any case no indications of its pre-Achaemenean architecture have come to light. It may be inferred that the architectural forms and methods used in those countries which ultimately formed the kingdom of Persia were derived from Babylonia and Assyria; and prevailed until the consolidation of the kingdom, and the adoption of Susa as the winter capital of the kings led to the formation of a new style based on influences derived from the more highly cultured western nations, tinged with a peculiar strain of luxuriance which was innate in the more oriental character of its ruling people.

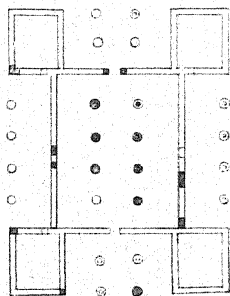
¹ See G. Smith, p. 354.

² "Mission scientifique en Perse (Recherches archéologiques)." In these he purposely omits to describe monuments that had already been dealt with by Dieulefoy.

³ See *ante*, pp. 10, 17.

⁴ The account of Herodotus must be regarded as partly fabulous; but it seems possible that it had walls faced with coloured tiles like some Babylonian buildings. The city mentioned by Strabo is identified with the modern Hamadan. On the question of its identification see Curzon's "Persia," vol. i, p. 567.

Persian architecture, then, as a distinct style, may be said to have had its origin, like the empire, with Cyrus. To commemorate the defeat of Astyages, near Pasargadae, he raised the town or village to the rank of a city and built there a palace for himself.¹ The site is a level plain, through which the river Polvar flows near the modern village of Murghab, about twenty-three miles north-east of Persepolis. Here are several groups of ruins which for the most part show, in an early form, features which are more familiar in the work of Darius or Xerxes.



PLAN OF A BUILDING OF
CYRUS (p. 203)
(Dieulefoy.)

A large platform, built out against a slope on the east side of the road, was evidently the site of a building all traces of which have disappeared. Its west front was 290 feet long, and the area was nearly square, except that the north and south sides were, in their central portions, set back to a depth of 54 feet. The height of the platform was $38\frac{1}{2}$ feet; it consists of fourteen courses of large stones with rusticated faces and edges trimmed smooth in a manner familiar in modern architecture. They are

closely jointed without mortar, but have been tied with wooden cramps. This may well have been the site of Cyrus's first palace, and the idea of basing it on so high a platform seems due to the common practice which prevailed in Mesopotamia.

About 300 yards farther south, a single wall without any openings is all that remains of a square tower, which, as will appear hereafter (p. 211), was probably a tomb. Farther on is a monolith about 18 feet high on the upper part of which is a trilingual inscription by

¹ Strabo, XV, iii, 8.

Cyrus, and traces of an adjacent building. Still farther is an oblong paved space the enclosure of which is only indicated by three corner piers with the same inscription as that just mentioned. In the centre of the paved space is a plain cylindrical column about 36 feet high on a plinth of black basalt. There are indications of seven more columns and the lowest courses of door jambs, on which remain the feet of a processional relief.

About 150 yards to the south-east is a platform which supported a larger building which was possibly a second palace. The bases of two rows of six columns still remain. In close proximity to them is a squared limestone block, 11 feet 7 inches in height, on which is a bas-relief of Cyrus. He is represented with four wings, and wears a curious head-dress consisting of two ram's horns, surmounted by two *uraei*, or sacred serpents, above which is a peculiar crest known as the crown of Harpocrates. The Egyptian element in the symbolism suggests that this monument was posthumous, and erected by Cambyses or Darius.

There is one more monument in this neighbourhood which is exceptional in interest. It is that which is well known under the name of the Tomb of Cyrus, and there is good reason to suppose that it is rightly so called.



BAS-RELIEF OF CYRUS
(Dieulefoy.)

It consists of a rectangular chamber with a ridged stone roof, elevated upon a plinth graduated in seven stages. The total height from the ground is about 37 feet. The entire structure is composed of great blocks of marble-like limestone closely jointed and held together in some places by metal cramps. The lowest step is only 13 inches high from the ground level, but the next is



THE TOMB OF CYRUS

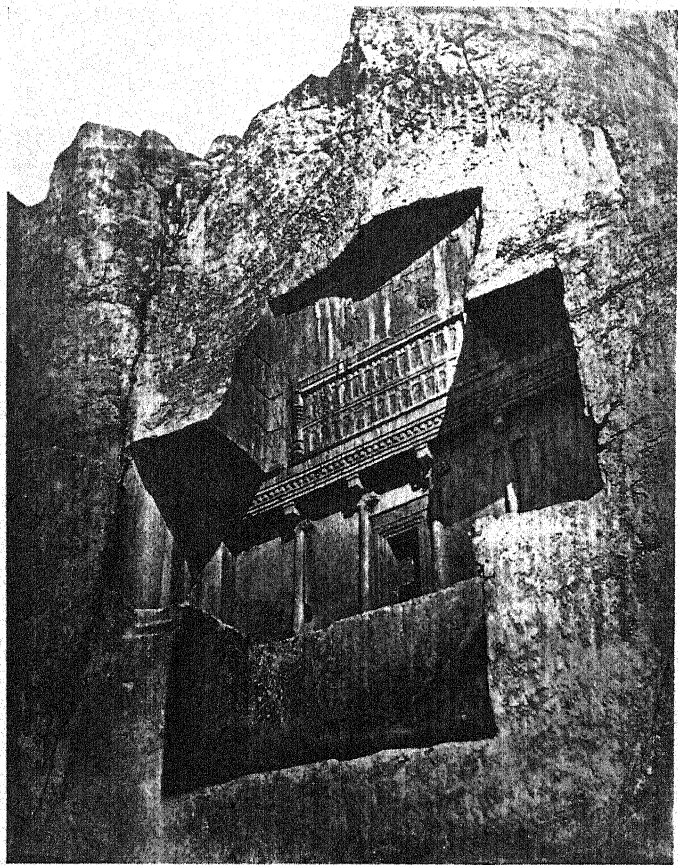
(Dieulefoy.)

constructed of enormous blocks 5 feet 5 inches in thickness. The two next are 3 feet 5 inches high, and the three uppermost, 1 foot 10 inches each. The ground-area is 47 feet 2 inches by 43 feet 9 inches, and that of the uppermost platform 26 feet by 20 feet. The tomb itself externally is 21 feet long by 17 feet wide, and its height is 18 feet 2 inches, with a narrow entrance at one end. The whole edifice was originally surrounded by a

colonnade of twenty-four smooth cylindrical shafts, of which a few fragments remain *in situ*, and the enclosure was laid out as a garden thickly planted with trees.¹ It has been supposed by Fergusson and others that the form of this structure was suggested by some of the stepped towers of Mesopotamia which Cyrus and his Median followers may have regarded as sepulchral monuments.

As such this mausoleum of Cyrus remained unique, for the tombs of his successors seem to have been constructed under other influences. High up on the face of a cliff, in a ridge of hills known as Husein Kuh, a few miles below the ruins of Pasargadae, are four rock-hewn sepulchres. The place is popularly known as Naksh-i-Rustam (pictures of Rustam) from the later reliefs which are carved on the lower part of the same rock and are supposed to commemorate the legendary feats of the Sassanian hero, Rustam. Three of the tombs face to the south, but the fourth (counting from the west), owing to a nook in the rock-face, looks towards the west. The oldest is the third, and is known from the inscription on it to be the sepulchre of Darius. The general design of the exterior as indicated by the hewn surface of the rock has the appearance of a gigantic cross, each limb of which has a vertical measurement of 24 feet, making a total height of 72 feet. The width of the upper and lower limbs is about $35\frac{1}{2}$ feet, whilst the transverse member has a total length of $59\frac{1}{2}$ feet, and therefore extends as an arm of 12 feet at each side. The lowermost arm of the cross is a bare surface with no carving, and its edge is from 25 to 35 feet above the ground, so that the whole is inaccessible without mechanical aids. The main transverse limb is

¹ This tomb is described with some minuteness by Strabo. His account is derived from an eye-witness, Aristobulus, who accompanied Alexander on his Persian campaign. See Strabo, XV, iii, 7.



THE SEPULCHRE OF DARIUS
(Dieulefoy.)

deeply carved so as to represent the front of a palace. Four columns with unchannelled shafts, and with capitals in the form of demi-bulls placed back to back, stand between two plain piers or *antae*, and appear to support an architrave with dentilled cornice. The shafts are represented as standing on bases with plain circular mouldings, and the whole façade is set back so as to leave a narrow ledge in front of it. Between the two central columns is carved the representation of a high doorway divided horizontally into four panels, of which the lowest panel only formed the entrance into the sepulchral chamber hollowed in the rock. It was probably closed by a block of stone which turned on pivots. The architrave and the lintel of the doorway show unmistakable signs of Egyptian influence, whilst this transverse limb of the cross represents with some fidelity, we may assume, the mundane dwelling of the deceased monarch. The upper compartment is devoted to symbolizing the more solemn purpose of the monument, and shows the king himself in communion with the divine being under whom he held dominion over subject peoples. Immediately above the architrave of the palace-front there is the representation of a platform divided horizontally into two stages, each of which is supported by fourteen figures who sustain, with uplifted arms, the corniced floor above them. These figures are clad to represent various nationalities.

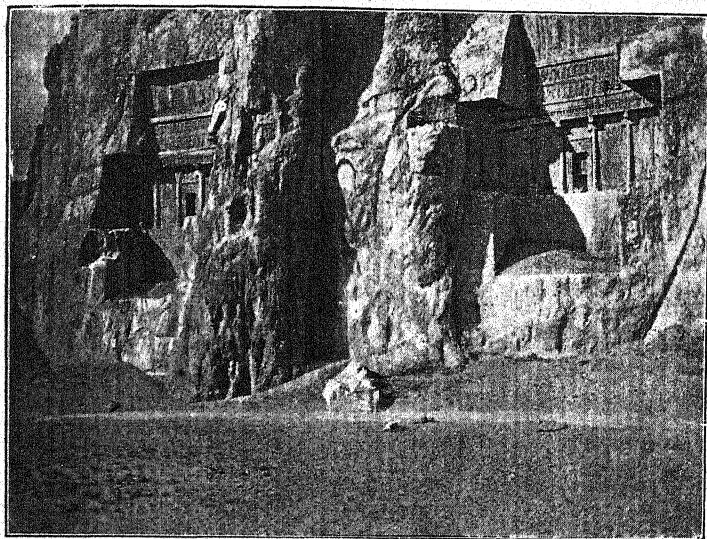
“The sides or corner posts of the terrace, which is doubtless a copy of the platform that supported the royal throne, are curiously moulded and carved, and terminate in griffins’ or bulls’ heads at the top. Upon its summit appear two objects. On the left-hand side is a small dais or platform of three receding steps, upon which stands the king, seven feet in stature, . . . with a gesture of oath or adoration towards an object that floats in the air overhead. This we now know from the inscriptions to be the image of the god Ahuramazda or Ormuzd:

a symbolism that is directly borrowed from the representation of the god Assur in Assyrian sculptures. The deity is represented as a small figure, with the upper part of a man, and with hair and head-dress similar to those of the king, but with the lower part of his body terminating in plumes. A disc encircles his waist, long streamers float behind him and he is upborne in space by outspread horizontal wings. . . . Behind the god is sculpted in relief the second object upon the platform, viz., a fire altar, upon which the undying flame is depicted in the form of a cone of fire. In the right-hand corner above, the disc of the sun hangs in the sky. It should be added that on either side of the terraced platform, and in the returning angles of the rock, are chiselled a triple vertical row of figures, singly, or in pairs, which, according as they are armed or unarmed, represent the bodyguards or attendants of the sovereign " (Curzon's " Persia," vol. ii, p. 138).

The interior arrangement of these sepulchres varies slightly. The original plan seems to have been to provide three cubacula or cavities for the reception of the deceased potentates in the back wall of the inner chamber, but in the case of that of Darius the chamber was enlarged at the west end, and receptacles for six more coffins provided. The other three tombs which, though they have no inscription, are undoubtedly those of Darius' successors, Xerxes I, Artaxerxes I, and Xerxes II are reproductions of the same design. Their general similarity to the rock-hewn tombs at Beni-hasan, on the Nile, is noted by Lord Curzon; but whether they are direct imitations, or, more probably, elaborated examples of a type which had already become prevalent in Susiana, is doubtful; for De Morgan describes, at Taharika, some rock sepulchres of a less ornate character, one of which, however, is still more reminiscent of Beni-hasan inasmuch as it has two free-standing columns in front and two in the interior cavity.

There is, however, reason to suppose that Darius, if he designed his own tomb, was the first to adopt this

highly decorated form of frontispiece, which became the pattern for those of his successors. On a slight artificial elevation facing the fourth tomb at Naksh-i-Rustam, there stands a massive-looking tower 22½ feet square in plan and 35½ feet high, to which the only entrance is a

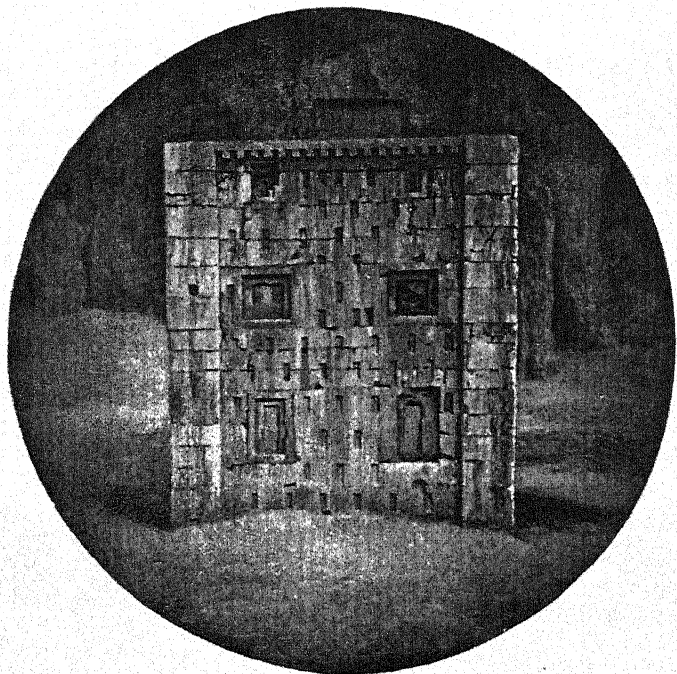


SEPULCHRES ASSIGNED TO XERXES I AND ARTAXERXES I ON THE WEST SIDE OF THAT OF DARIUS

(Curzon.)

doorway 6 feet in height, but placed 16 feet above the base of the tower, and formerly approached by a flight of steps now destroyed. There are indications of there having been originally a stone door poised on pivots. The interior chamber is 18 feet high, and is roofed by four slabs of stone: below the chamber the building is solid. The whole is built of blocks of fine white lime-

stone. The only aperture is the doorway on the north side, but on the south, east, and west sides there are blank panels arranged like windows in three pairs which are smaller in size as they are more highly placed, and



THE SUPPOSED TOMB OF HYSTASPES
(Curzon.)

the whole surface of the walls is pitted with a dozen rows of small rectangular niches. The quoins of the tower have wide flat buttresses without capitals, but the tops of the walls between them are finished with a thin dentilled cornice. The object of the small niches is not apparent, but it may be conjectured that they are

imitations of the holes which are found in many Babylonian structures both of early and late date. This building was formerly assumed to be a "fire-temple," but the existence of a closed chamber devoid of ventilation seems inconsistent with such a purpose; on the other hand, the evidence within the doorway of a slide upon the floor, suitable for the intrusion of a sarcophagus, suggests that it was a sepulchral building. The ruins of a similar tower at Pasargadae have already been referred to,¹ and it has been suggested by Perrot, with whom Lord Curzon agrees, that the tower just described was the tomb of Hystaspes, the father of Darius, and that the earlier tower at Pasargadae was that of Kambyzes I, the father of Cyrus. The Mesopotamian genesis of these buildings is somewhat supported by Fergusson's theory as to the tomb of Cyrus, and it may well be believed that the earlier Achaemenean kings adopted for their tombs the forms of building already familiar to them until further foreign experience had given a wider scope to their art.

The development of Persian architecture no doubt owes much to Darius. After the death of Cyrus (529 B.C.) the short reign of his son Kambyzes was chiefly occupied by the subjugation of Egypt, and is marked by no special constructional work. But when Darius Hystaspis had established himself securely on the throne a rapid advance in architectural activity and achievement was inaugurated. Darius had served as a general under Kambyzes in the Egyptian campaign, and not only became acquainted with the Ionian buildings at Cyrene and Naucratis, but had also seen for the first time the stupendous hypostyle hall of the temple of Ammon, and other marvels of Karnak and Thebes.

¹ See *ante*, p. 202. A third similar though smaller tower is also mentioned at Naubandajan, eleven miles south-east of Fasa. See Curzon, vol. ii, p. 145.

The Persian king had already two principal palaces, one at Susa, the ancient Elamite capital, which was no doubt similar in style to those of Assyria, and another at Ekbatana, in Media, which was only occupied in the summer. It is possible that Kambyzes was the first to form the idea of erecting a more modern and magnificent residence near the new city of Pasargadae and the adjacent sepulchre of his father Cyrus. But if so, it was left to his successors to carry out the plan and realize the new ideals in architecture and decorative art with which they had become imbued.

PERSEPOLIS. On the footslopes of the limestone cliffs bordering on the north-east the valley of the River Polvar, where it emerges from its narrow course below Pasargadae into the wide plain of Murghab, a platform was made by paring down and levelling up the natural rock. It rises to a height of from 20 to 50 feet above the uneven surface of the ground, and is faced with gigantic blocks of fine calcareous stone from the neighbouring hills. Some of the blocks are as much as 50 feet in length and are laid in horizontal courses, but they are for the most part polygonal. The wall was originally finished with a moulded cornice, which has now disappeared.¹

This platform, though it can only be regarded as rectangular in a general sense, measures about 500 yards in length from north-west to south-east, and about 300 yards in width. On its west side and rather towards the south end Darius built a palace which is probably the earliest structure on the site. Compared with some of the later buildings it is of moderate size, the south side, which was the front,² being about 100 feet wide and the depth from front to back being about half as

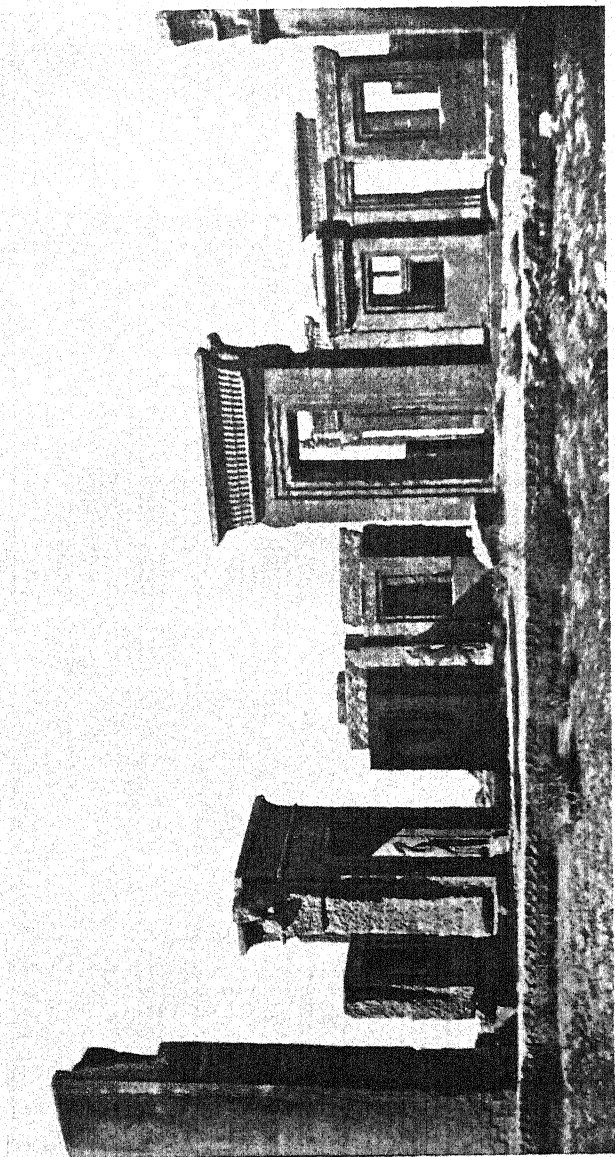
¹ See Curzon, vol. ii, p. 151.

² This is the only building on the platform which does not face towards the north.

much again.¹ The building consisted of a square hall, the roof of which was supported by sixteen columns, surrounded on three sides by smaller rectangular chambers, and having on the south front a portico with two rows of four columns closed at each end by a rectangular chamber which was probably the base of a tower. The whole stood upon a special plinth or terrace raised about twenty feet above the general level of the platform, and at each end of the terrace-front is a staircase rising parallel to and within the front line of the terrace wall. This was probably at first the only way of entrance. The front of the terrace between the stairs is richly carved with reliefs representing two processions of armed warriors marching towards the centre, where there is a rectangular panel containing inscriptions by Darius and Xerxes: but at each end the triangular space formed by the side of the sloping staircase is filled by a bold carving in relief of a lion attacking a bull from behind, a mythological subject which is frequently repeated. The sloping wall on the inner side of each staircase is also filled with figures, as if they were mounting the stairs in procession.

The remains of the building that are still upstanding have, from a structural point of view, more importance than those of the later and larger buildings. They consist mainly of the stone framing of doors and windows. The doorways are surmounted by a fluted cavetto moulding closely resembling an Egyptian cornice. Within the front portico are still standing the frames of a central doorway and two windows on each side of it, whilst the back or north wall of the central court is still represented by two doorways with three decorated niches in the intermediate spaces. The doors

¹ The width of the front is generally given as 95 or 96 feet; but there is considerable discrepancy in the depth, which varies in amounts from 132 to 180 feet. Curzon, vol. ii, p. 167.

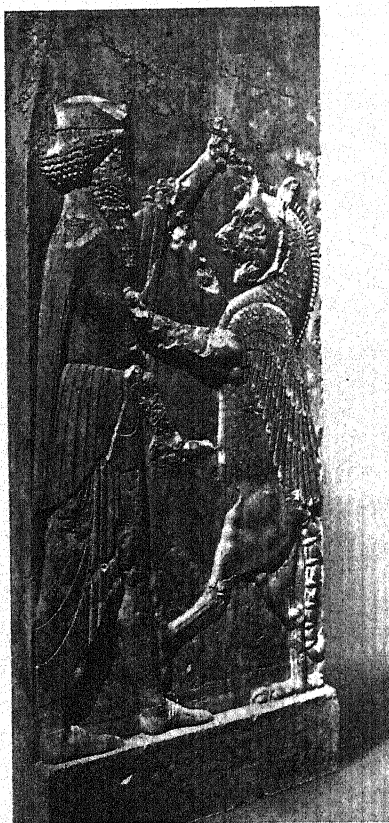


REMAINS OF THE SOUTH PORTICO AND WALLS OF THE PALACE OF DARIUS
(Dieulefoy.)

lead into what may be called an *opisthodomos*, in which there are traces of column bases and party walls. On the east and west sides of the central hall each wall had a single doorway leading into the lateral chambers, and a niche on each plain panel. From the rectangular chamber or tower at each end of the fronting portico there was also an entrance to the lateral chambers. These smaller rooms surrounding the central hall were probably used as bedrooms, but the whole plan was too restricted and on too small a scale for a residential palace, and it may be surmised that it was used as an occasional lodging for the king himself, and that the women and the greater part of his retinue were housed in other buildings of which few remains exist. The absence of the connecting walls between the stone details which have been preserved, indicates almost conclusively that they must have been built of unburnt brick and have gradually disappeared under the effects of time and weather. At each end of the portico there was a massive quadrangular pillar of stone, one of which still remains nearly complete. They formed the inner angles of the portico in a line with the front row of columns, and assisted to support the entablature. The appearance of this front may be realized from the representation of the similar façade on the tomb of Darius, where we see a dentilled cornice supported at each end by a plain pier, and immediately by four columns with capitals of two semi-bulls between which appear the ends of transverse rafters. There is, however, no constructive evidence of an upper storey as has been inferred from the upper panel of the tomb.

The building as completed by Darius or his son Xerxes did not remain unaltered, for at a later date a second entrance was made on the west side with a small double staircase giving access to it from the lower level of the platform. It consists of two flights meeting in a landing

at the top, the triangular sides of which have each the



DOOR-JAMB FROM PALACE OF DARIUS
(C. 350 B.C.)
(Dieulefoy.)

frequently repeated relief of the lion and bull. At the top of the steps is a door leading into one of the side chambers, from which another doorway opposite opens into the central court. The sides of the latter consist of huge slabs of stone carved in relief and representing, with curious formality, a winged monster being solemnly stabbed by a king. The same subject occurs in other buildings on the site, and in all respects these alterations appear to be imitations of earlier work. An inscription on the stairs records that they are the work of Artaxerxes III (359-338 B.C.), and thus must be almost the latest example of Achaemenean architecture.

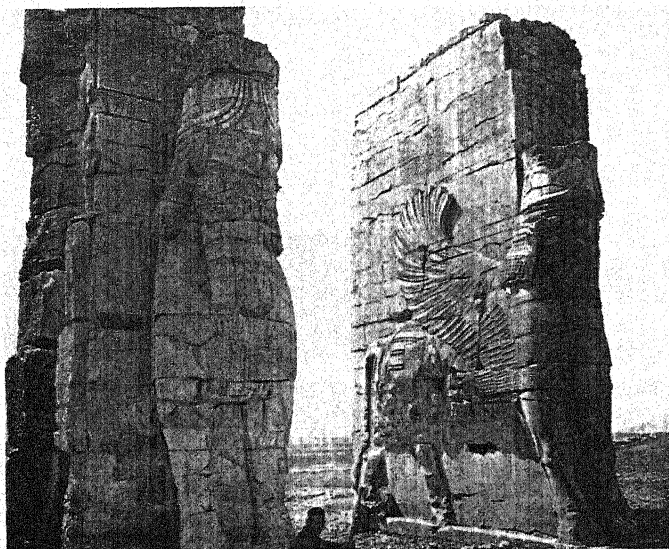
The whole site, which was apparently destined by Darius to be a stage for regal state and pageantry, was greatly developed by

his son Xerxes. The main approach to the platform is now an imposing staircase on the west side towards the north end. It consists of two counter-turned flights of stairs set within the frontage-line, the two lower flights ascending in opposite directions and the upper two meeting in a landing 70 feet long at the top. There are about 109 steps in each double flight and the treads are $22\frac{1}{2}$ feet long and 15 inches from front to back, with a rise of only 4 inches, thus forming a gentle ascent which is easily surmounted on horseback. Several successive steps—in one case as many as sixteen—are cut in one block of the marble-like limestone of which the whole is constructed.

As there are no carvings or inscriptions on the side-walls it is impossible to say at what date this approach was made, but it is certainly associated with the work of Xerxes. For opposite the top of the staircase at a distance of only 45 feet are the remains of what was evidently a state gateway or propylaeum, with a bilingual inscription ascribing it to Xerxes. It was a pavilion-like structure, square on plan, with imposing portals on the east and west, each flanked by skilfully carved reliefs of colossal winged bulls. Those on the eastern or farther side had human heads, and wings raised high above the back. The Assyrian origin of these guardian bulls is obvious, though they differ from their prototypes in details. Instead of being monoliths the Persian door-jambs are built up in four courses six feet in thickness to a height of 35 feet, of which the sculptured figures occupy the lower half, the upper portions having a long inscription of Xerxes in three languages claiming the construction of the portal. The figures of the bulls dispense with the absurd fifth leg which characterizes the Assyrian monsters.¹ The wings also are treated with much more flexibility and fancy, being curved aloft in contrast to the rigid convention-

¹ See *ante*, p. 129.

ality of the Assyrian designs. These imposing portals led into a central space 82 feet square originally covered by a timber roof supported by four fluted columns with the composite capital peculiar to Persian architecture and bell-shaped bases like the calyx of a flower reversed.



COLOSSAL FIGURES ON THE NORTH-EAST SIDE OF THE PORCH OF XERXES
(Curzon.)

Parts of two of these columns are still standing and remains of a capital lie imbedded in the soil.¹

This detached pavilion would seem to have served no other purpose than that of an imposing gateway or propylaeum to a large building about 54 yards to the south of it. It is true that the axis of the gateway

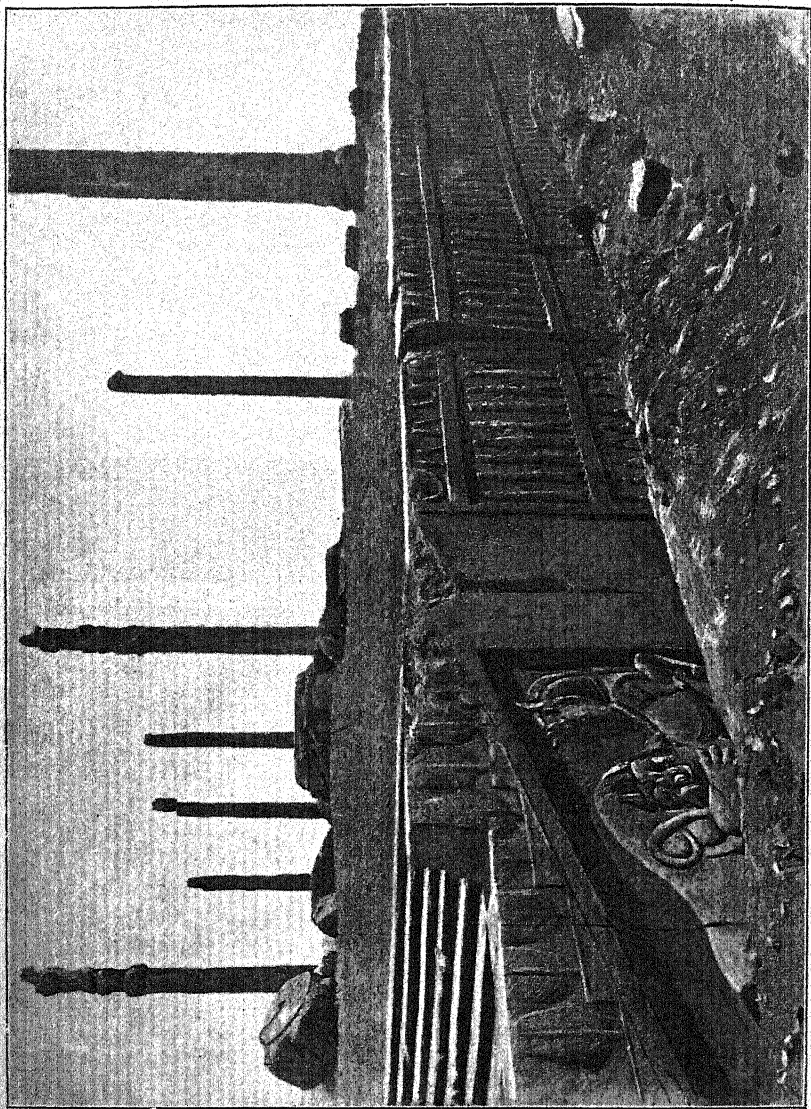
¹ Curzon, vol. ii, p. 158.

is at right angles to the front of this building; but it must be supposed that the whole site was covered with artificial soil and laid out as a luxuriant park or garden, interspersed with numerous buildings. The remains of a well-head or cistern near the portico, and numerous subterranean or open conduits for water are sufficient evidence of this,¹ and also explain the fact that all the buildings are raised on stylobates of considerable height. The placing of the great staircase which gave access to the platform so far from the palace of Darius may be accounted for by the supposition that the whole was planned out by Darius in conjunction with his son, or that it had some relation to the position of the Hall of 100 Columns as will appear later.

The building on the south with which the porch of Xerxes seems most immediately associated must have been the chief adornment of this assemblage of royal edifices. It is raised on a terrace, about 11 feet above the general level of the site, the north front of which is 72 yards long. The terrace is ascended on this side by four flights of steps, two of which, set beyond but parallel to the front, meet in a central landing, whilst at either end of the terrace is another flight also parallel to, but in this case set within, the frontage line. Each flight has 31 steps 15½ feet in length and 14 inches in width, with a rise of about 4 inches.

The front of the central double flight is adorned with some of those carvings in relief which form such a striking feature in the architecture of Persepolis. The central space below the landing has a panel evidently intended for an inscription which was never executed, and on each side of this are figures of armed guards, three on one side and four on the other, all facing towards the centre. The triangular sides of the flights of steps are filled with similar carved reliefs of a bull rearing

¹ Curzon, vol. i, p. 181.



FRONT OF THE HALL OF XERXES FROM THE NORTH-EAST. (Curzon.)

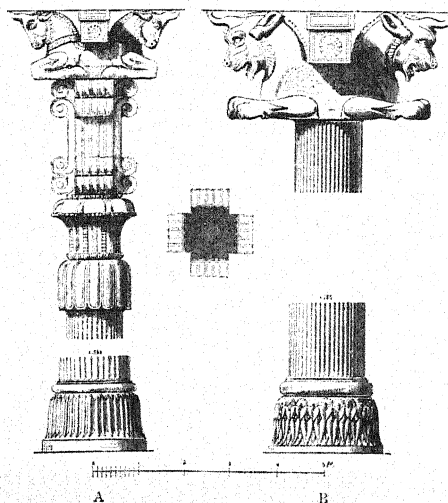
beneath the assault of a lion who attacks him from behind and has his claws fixed in the bull's flanks. It is the same subject as that already mentioned as occurring on the front of the palace of Darius, but though it is repeated elsewhere, there is no accepted explanation of its significance.

The main surface of the front at either end of the central stairs is also richly covered with sculpture in relief, but on a smaller scale, for there are three parallel rows of innumerable figures marching in procession from each end towards the centre. The top row is badly mutilated owing to the destruction of the parapet, and the lowest is partly buried in the soil. At each end is a space left for an inscription adjoining the triangular side of the terminal staircase which is filled in each case with the usual relief of the lion and bull. The figures on the left with arms or musical instruments and accompanied by chariots and horses are apparently typical of the army of the king; those on the right, which are divided into groups by representations of clumps of trees, appear from their dress and features and the animals and various objects which they bring with them to typify subject peoples of many nations doing homage and paying tribute. "There can be very little doubt," says Lord Curzon, "that we have here depicted the ceremonial observance that took place annually in the palace above at such time as the Great King came . . . to receive the reports of his officers and the tribute of his subjects."¹

The ground-plan of the building, which stands upon this terrace, shows clearly that it was no residential palace, but a grand reception or *darbar* hall adapted only for use on ceremonial occasions. It contained a large central hall 140 feet square, the roof of which was upheld by 36 columns in six rows, with external porticoes on the north, east, and west sides, containing two rows

¹ Curzon, vol. ii, p. 161.

of six columns each, making a total of 72 columns. Thirteen of these were still standing at the date of Lord Curzon's visit, about 1890; some half-dozen seem to have fallen in the three centuries preceding. The total height of the columns is about 67 feet. The shafts are



CAPITALS FROM THE HALL OF XERXES

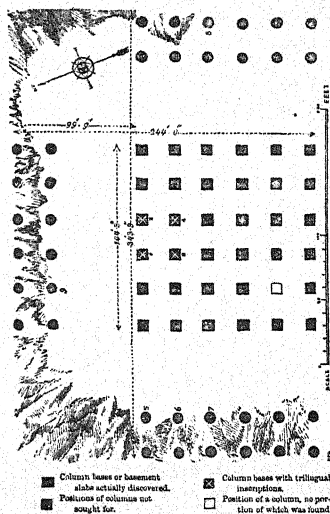
A Interior. B East portico.

(Lübke.)

built up of three drums and are fluted, as is always the case in these Persian buildings.¹ Those in the central hall stand on plain rectangular blocks and have the fantastic triple capital which is a peculiar characteristic

¹ Plain unfluted columns are very rare in Persia, only those which surrounded the tomb of Cyrus, and a few other isolated specimens have been noted. The pilasters on the façades of the royal rock tombs are also plain. See Curzon, vol. ii, pp. 74, 159.

of this architecture. The same capital occurs also in the front portico, but in the side colonnades it is simpler and consists only of two demi-bulls or unicorns which rest immediately on the top of the shaft and sustained the roof-beams between their necks. The bases in all the porticoes are of the more ornate sort used in the Porch of Xerxes, having the shape of a bell clad in leaves, or an inverted calyx. The roof of this and other buildings almost certainly consisted of wooden beams, probably of cedar, overlaid with smaller timber, and made water-tight with clay or other plastic material, but no actual evidence of this remains. The details of the columniation are derived from Lord Curzon's careful notes, and as they differ in some respects from those given by others, it is worth while to notice that they are corroborated by Loftus' excavation of a building at Susa of the same plan and dimensions, which is attributed to Darius, but was restored by Artaxerxes III. In this the thirty-six columns of the central hall stood on square plinths,



PLAN OF PALACE AT SUS¹
(Loftus.)

¹ In De Morgan's "Délégation en Perse" (p. 69) the existence of an outer row of columns in the north portico is discredited on account of the abrupt slope of the ground. This was not overlooked by Loftus; but it seems possible that it was due to later denudation. See Loftus, pp. 365 *sq.*

whilst those in the porticoes on the north-east and west had circular and bell-shaped bases. The triple capitals were almost identical in form.

Whether there were any walls in these buildings, enclosing the ends of the porticoes and separating them from the central hall, seems to remain an open question. By some it is assumed that the hall was only shut off by curtains, as seems to be implied in the description, in the Book of Esther (ch. I, v, vi), of the feast of Ahasuerus or Xerxes at "Shushan the Palace," perhaps in the very building unearthed by Loftus. The expression "the court of the Garden of the King's palace" seems to suggest that it was rather a magnificent garden-house separated from the habitable portions of the palace, than the main building itself.

This view is supported by the fact that no vestige of any walling remains, and even if it had consisted of perishable sun-dried bricks, some evidence in the shape of window and door-frames of stone must have survived, as is the case in the palace of Darius and other buildings still to be mentioned. It is true that in the space between the front portico and the hall there are four massive substructures which may have served as footings for two pairs of heavy stone door-jambs, but there is no actual evidence of their purpose.¹ Whatever was the external form of this vast building there can be no doubt

¹ It is rather singular that Dr. Koldewey, referring to the remains of a Persian building at Babylon derides the idea of any of these structures (which he mentions under the Persian name *Apadana*) being unenclosed. He may be right as to that at Babylon, but he particularly mentions this Hall of Xerxes of which he gives a plan showing walls and two frontal towers. He appears to ignore any distinction between these buildings—which with their lateral porches seem to have something of the accessible and public character of a Greek *stoa*, or a Roman *porticus* or basilica—and the more domestic arrangement of the palace of Darius, or that of Xerxes himself which has still to be described. See Koldewey, "Babylon," p. 128. On this point, see Lord Curzon's remarks (vol. ii, p. 164).

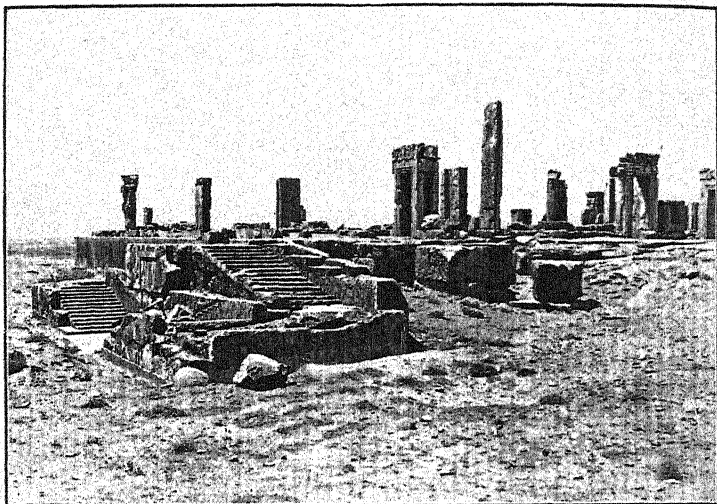
that when the columns of ceilings were in all the perfection of colour and gilding, the interior must have presented an extraordinary scene of oriental splendour, impressing all who beheld it with the power and magnificence of the Great King.

Immediately to the south of this building is the palace of Darius already described, and still farther, almost at the southernmost extremity of the platform, is another palace built by Xerxes, apparently as a residence during his visits to Persepolis. It is similar in arrangement to that of Darius, but is on a much larger scale, and its front, like that of all the other buildings, except the first, faces towards the north. The approach, however, differs considerably in that the grand staircase by which the raised terrace is ascended does not lie symmetrically along the front, but forms a northern extension from the eastern end of the front. It is planned, like that which leads on to the main platform from the plain below, in two separate sets of stairs the lower flights of which rise in opposite directions. Each of these is counter-turned at a landing mid-way, so that the upper flight of each approaches the other at the top. Here is a broad space in which are four great sunken masses of stone, which may have been, as Fergusson assumes, the foundations of something in the nature of a propylaeum or state entrance, but of this there is no certain evidence. There is also another staircase at the west end of this front which ascends from the north. On the south side of the terrace, where the main platform itself falls suddenly to a lower level there are stairs at each end parallel to the front, and another set of steps at the extreme west end which is singular in being hewn out of the natural rock at right angles to the line of the terrace.

The grand staircase is in a very ruinous condition, but its sides and walls are copiously adorned with sculptured reliefs, showing numerous figures walking in

procession, with the usual subject of the lion and bull filling the triangular spaces caused by the sloping lines.

The plan of the building itself follows much the same lines as that of the palace of Darius. It has a central hall about 87 feet square which had 36 columns, and an entrance portico with two rows of six. Only the bases



APPROACH TO THE PALACE OF XERNES FROM THE NORTH

(Curzon.)

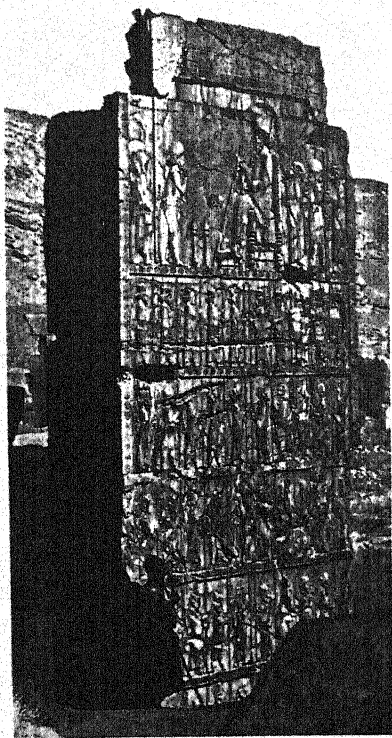
remain, in both cases circular, and the columns were no doubt of the complete Persian order. There were four smaller chambers on each side of the hall, including those on the north, which were probably the basements of towers. The third from the front on each side seems to have had four columns; and these apartments were probably destined to some more important purpose than the others. Those on the extreme south were subdivided

into three; whether they or any of the others were bedrooms is, of course, a matter of conjecture. In one respect the plan differs from that of Darius, viz., that there are no chambers at the back, so that from the central court a view could be obtained through windows looking southward over the plain.

Though no columns are left upstanding, there are several tall piers of stone which may have formed the quoins of walls or towers and numerous remains of door-jambs and architraves, window-frames, and niches. These are, in many cases, adorned with sculptures similar to those in the palace of Darius, illustrating the state and luxury of the king and the servile attendance of his courtiers. The survival of these remains, fragmentary though they are, tends to emphasize the difference in character between this more domestic building and the great hall of audience which must have been contemporary with it.

There was another building of exceptional importance, of which both the date and purpose remain somewhat uncertain. It is known as the Hall of 100 Columns, and lay towards the centre of the site, and not far from the mountain background. When the mass of broken stonework which covered the area was first explored it was found to be the remains of a square hall each side of which measured internally 225 feet. The roof had been supported by 100 columns in ten lines of which, however, not one remains standing. The interval between them, measuring from the centre, was 20 feet. On the north side there was an entrance portico somewhat shorter than the side of the hall, which had contained sixteen columns in two rows. The fragments remaining show that all the capitals were of the characteristic Persian order with the triple capital and bell-shaped base, but as their height appears to have been only 37 feet, it is evident that the building, notwithstanding its extensive

ground-plan, was far less imposing in appearance than the neighbouring hall of Xerxes. It had, moreover, no



CARVED DOOR-JAMB FROM THE HALL OF
A HUNDRED COLUMNS
(Dieulefoy.)

lateral colonnades but was surrounded by an enclosing wall in each side of which were two entrances placed symmetrically. Those which communicated with the front portico were larger than the others, and in the spaces between them were nine windows, three in each, which must have admitted a subdued light. The walls at the back and sides appear to have had only blind niches in place of windows. It is remarkable that this is the only building on the site which, when it was first examined during the last century, showed unmistakable evidence of its having been consumed by fire, and so far confirmed the tradition of its destruction by Alexander the Great.

The walls, which must have been of unbaked bricks, have disappeared, leaving only the stone frames of

windows and niches and the high flanking blocks of the doorways.

The carving on some of these is finely executed and extremely interesting, and in some cases its sharpness is wonderfully preserved. At each end of the portico are the remains of gigantic figures of bulls similar to those at the west door of the porch of Xerxes. On a great slab flanking one of the doors at the northern entrance the king is represented seated on a high-backed throne with attendants behind him, and two figures facing him in front. Below are five rows each containing ten figures of warriors armed with lance and shield, all of whom face towards the central line. Another subject to be seen on the doorways in the south wall shows the king seated beneath a delicately carved canopy on a throne which stands on a platform upheld by people of subject nations as on the tomb of Darius at Naksh-i-Rustam, but in this case the figures are disposed in five parallel rows. Above the whole is the winged emblem of Ormuzd.

As to the purpose of this hall it may be assumed, with some confidence, that it was, like that of Xerxes, used as a throne-room, in which the king sat in state to receive the homage of his subjects. Whether this is the earlier or later of the two buildings is a matter of doubt. The technical excellence of its sculptures has suggested to some that it belongs to a late period of Achaemenean art, but Lord Curzon, for the same reason, comes to the opposite conclusion and argues with some weight that this phase of art seemed to reach its culmination under Darius, and that it may well be his work. Several facts support this view. Of all the columned halls at Persepolis, this approximates most nearly, in its enclosed plan, to the hypostyle halls which were found only in Egypt, whence it seems likely that Darius derived some of his architectural ideas. Again it may be argued that both

this hall, and the grand stairs leading up to the main platform were built at a time when the excessive use of mural sculpture had not been developed; and it may be assumed that Xerxes, anxious to surpass the work of his father, both in scale and decoration, increased the height of his columns and the number of his colonnades and at the same time covered the walls of his terrace with processional groups of sculpture which, whilst they added to the richness of their effect, fell somewhat short in the care and delicacy of their execution. It is to be noted that at some distance to the north of the Hall of 100 Columns are the remains of a porch-like edifice which may have been the prototype of that erected by Xerxes opposite the front of his hall.

If this view is justified it may be supposed that the great staircase was built by Darius as an approach to his hall of state; whilst he placed his residential palace, for the sake of privacy, farther to the south, and facing in the opposite direction.

There are scanty remains of several other buildings on the platform with traces of smaller columned halls. One, adjoining the palace of Xerxes at the extreme south-west of the main platform, which there abruptly takes a lower level, shows the remains of a structure attributed to Artaxerxes III. Another lies some 180 feet to the east of it; and farther to the north, near the palace of Darius, and on the very edge of the platform, are the remains of a small columnar building. Some of these have been considered to be residences for the women, who do not seem to be provided for in the larger palaces, but there is nothing else to corroborate this view. As these have no new architectural features to illustrate it is needless to describe them in detail. Between the palace of Darius, and the remains of a detached portico or gate with four columns, there is a large mound, which, on being partially examined,

was found to consist of masons' rubbish and chips.¹ It seems possible that this mound was the result of a general clearing up of the site after the alleged devastation of Alexander, or later despoilers, and that a more thorough examination might reveal interesting evidence as to the interior decoration of some of the more important ruined buildings.

At the back of the platform, in the face of the precipitous hills which border it on the east is a rock-hewn tomb of the same form as those at Naksh-i-Rustam. It differs from them only slightly in dimensions, and as it is so placed that it can be entered from the platform the lower arm of the cross does not appear. In other respects the design is the same, but the mouldings on the architrave and door-frame are ornamented with delicately carved lions and rosettes suggesting that later Hellenistic influences were affecting Persian art. If, as is probable, it is the sepulchre of Artaxerxes II (405-361), this is not unlikely. There are two more similar tombs on the same ridge, but beyond the Persepolitan site on the south.

A general survey of the monuments which have been described, imperfect though they are, will suffice to form a theory as to the genesis and development of this somewhat transient art of the Achaemenides. That the architecture which preceded it in Elam and Media was largely based on that of Chaldaea and Assyria may be inferred from a few allusions in inscriptions,² and from the fact of the continued practice of constructing a high platform which, though absolutely necessary in the diluvial plains of Mesopotamia, and portions of Elam, was unnecessary in the rocky and mountainous district on the east of the Tigris where stone was the natural material for building. Even when Elam, Anshan, and

¹ Curzon, vol. ii, p. 175.

² See *ante*, p. 201.

Media were welded by Cyrus into a single state, the persistence of Mesopotamian ideas is observable.

The Assyrian parentage of the winged lions at the portals and the figures of kings contending with winged monsters, or seated in state on their thrones with ministering servants or subjects, needs no demonstration, and it seems more than probable that the wall-reliefs representing long processions of marching figures were suggested by the Assyrian mural decorations which



IVORY CARVING
OF THE
SACRED TREE
(British Museum.)

were themselves derived from an earlier Hittite art.¹ That they are superior in execution is partly due to the fine marble-like stone on which the Persian sculptor had to work, and perhaps more to a livelier fancy and inventiveness in decorative art than is shown in the best Assyrian work. Even the vertical volutes of the column-capitals seem to have been Assyrian in origin, if we may judge by a small ivory carving of the time, probably of Ashurnazirpal III. Whether Fergusson is more fortunate than in many of his speculations when he states positively that the tomb of Cyrus was a miniature copy of the zigurats of Mesopotamia may be open to question.² The fact that it is

raised on seven receding stages of diminishing height certainly gives it a likeness in form to that which Rawlinson ascribes to the great tower of Borsippa, and also agrees with the account by Herodotus of the temple of Bel-Marduk at Babylon, which, in the time of Strabo and probably for long before, was regarded as a tomb.³

Reasons have been given for supposing that the

¹ See *ante*, p. 167.

² "Hist. of Architecture," vol. i, p. 141 (1865).

³ Strabo, XVI, i, 5, mentions it as "The Tomb of Belus."

so-called Fire-Temples were built as royal tombs, and that these also are not untouched by Mesopotamian influences.¹ But when, after the conquest of Sardis (546 B.C.), Cyrus proceeded to overwhelm Ionia, he came in contact probably for the first time with Hellenic architecture, which is so largely based on the use of colonnades. The great temple of Artemis at Ephesus in its first purely Hellenic form—to which Croesus had contributed some of the columns of its prothesis—was then recently completed. In this he would see one of the noblest examples of the Ionic order—though not yet in the perfection which it afterwards attained in the hands of Athenian builders. That he should have sought to blend the novel features of this architecture with the more familiar fashions of Babylonia and Assyria is not surprising, and if the ruined buildings at Pasargadae were less fragmentary the process might be more clearly illustrated. In this way may be explained the remains of the columns still left,² and those which at one time surrounded the tomb of Cyrus, as well as the ridged roof and pedimental front of the sepulchral chamber itself.

The expeditions of Kambyzes and Darius to Egypt no doubt brought further new influences to bear on Persian art. The remarkable development of internal colonnades not only in the hypostyle halls of temples, but also in the more lightly built palaces, which have now disappeared,³ cannot have failed to appeal to the love of luxuriance combined with the mania for self-aggrandisement which were the ruling motives of Persian royalty. The columned halls of Karnak and Thebes were probably

¹ See *ante*, p. 211.

² See *ante*, p. 203.

³ The palace of Amenhetep III, at Thebes, seems to have been built of sun-dried brick, with timber columns. The extremely interesting remains of that of his son Akhenaten at Tel-el-Amarna show that it had an enormous hall with 544 pillars of stucco-coated brick. See "Architecture of Ancient Egypt," p. 78.

directly responsible, as has already been suggested, for the Hall of 100 Columns. But there is little to indicate any direct copying of the minor details of Egyptian art. The cavetto form of the lintels of doors and windows was probably inherited from Assyria, and though the fantastic design of the capitals of Persian columns recalls the strange and often impracticable carpentry represented on Egyptian wall-paintings,¹ it is more probably to be ascribed to a tendency to exuberant ornamentation, innate in oriental imagination, unrestrained by any regard or feeling for structural logic or architectural propriety. Hence the fluted Ionic column, which from its slenderness was well suited to their purpose, was universally adopted by Persian builders, whilst the capital and base with their flower-like corollae, upright or inverted, retain only a distant likeness to the palm or lotus leafage which plays so large a part in the purer phases of Egyptian architecture.

The uppermost member of the capital, consisting of demi-bulls or unicorns, seems to have been a device suggested perhaps by the goat-capitals that appear in some Assyrian reliefs and adopted, in place of an abacus, to contain rather than merely support the heavy cedar beams of the ceiling. As an architectural contrivance it did not commend itself to western nations, though a few columns in which the bulls are used merely as a decoration have occasionally been met with.² The use of the Ionic volutes in a vertical position at the sides of the capital shows a total inability to appreciate the process by which the Hellenic orders were logically evolved from earlier forms, but it is doubtful, as stated above, whether this particular ineptitude was originally Persian.

Notwithstanding, however, these obvious artistic

¹ "Architecture of Ancient Egypt," p. 231.

² See "Hellenic Architecture," p. 165.

defects, it cannot be denied that these great halls—adorned outside with sculpture illustrating the divine and earthly majesty of the great king, and inside with all the semi-barbaric splendour that gold and colour and gorgeous hangings could give—must have had a dazzling effect on all his subjects, filling them with admiration and awe, and fully satisfying the purpose for which they were designed.¹

¹ Readers interested in this particular form of art will do well to consult Lord Curzon's careful analysis of it in his chapter on Persepolis (vol. ii, pp. 189-196). If my brief summary differs in some unimportant and perhaps debatable details I hope that it, on the whole, reflects the opinions which he had the advantage of forming by personal inspection, and with wide knowledge of his predecessors' work.

CHAPTER XII

SUMMARY

THE powerful and penetrating art of Egypt in its earlier form, before it degenerated under the Ramesides of the XIXth dynasty, affected every neighbouring country, but its influence on the development of European architecture came chiefly through Crete and Greece. Its effect on the older Asiatic art, though perceptible enough, seems to have been less direct and was probably exerted indirectly through other nations or by the agency of the ubiquitous Phoenician traders.

The Sumerian civilization which affected so immediately and profoundly that of Mesopotamia, seems to have had something in common with the early dynastic art of Egypt, if one may judge by the statuary found at Tello, but differences in their minor arts, in their script, and in their mythology show that the culture of the Sumerians was in the main independent, though its sources are still obscure.

On the other hand there is evidence of a direct connexion between the culture of Mesopotamia and that of the adjacent regions of Syria and Asia Minor, though it is not evident in their architectural remains until Assyria had become a great military power and extended her expeditions beyond the Euphrates. She then came into contact with what was, for a time, the dominating power in Asia Minor, and a race superior to the Semitic peoples in artistic endowment.¹

¹ It seems probable that E. Meyer is correct in his supposition that the Hatti represent the aboriginal population of Anatolia (§ 476),

That the art of the Hittites had a direct and important effect on that of Assyria has not been generally recognized in text books of architectural history, and it may be that the attempt to demonstrate it which is the subject of some of the foregoing pages will not meet with general acceptance. Yet the fact remains to be accounted for that the Assyrians, whose architecture was originally based on that of Chaldaea, developed, at the time of their greatest power, a singular art of decorative sculpture unknown to contemporary Babylonia, giving their architecture a distinctive character which can only be ascribed to some extraneous influence. For the Assyrians, in common with other Semitic races, were more adept in the practical arts of life than in artistic conception and expression. In all that related to military efficiency they were pre-eminent, and the magnitude and character of their buildings show that they were masters of the most advanced mechanical appliances of their time. Even the subjects of their sculptured reliefs which illustrate sometimes details of their social life, but more frequently their military campaigns, tend to corroborate the practical and imitative character of their arts.

The only new contribution to the art of architecture that can be credited to Mesopotamia is a purely constructive one, the use, namely, of domical roofing, and this may be said to be the direct offspring of the soil.

It is true that this form of structure occurs elsewhere, and that in Crete are found the remains of domical

in which case they may be supposed to be a branch of the pre-historic Mediterranean race. That this race had split up, before the earliest days to which any organized human society can be traced, into many ethnographic divisions is obvious, but a similarity between religious ideas prevailing in Asia Minor and the Aegean, and certain elements in the mythology of Greece and Rome indicate an original relationship, and account for the natural aptitude for artistic expression which forms a feature in the culture of all these people.

tombs—the forerunners of the “Treasury of Atreus,” and other Mycenaean *tholoi*—which may date from more than 2000 B.C. But these are stone vaults built up in horizontal circular courses, diminishing in circumference towards the top, and present no special problem in their construction. The early Roman domes have no similarity to these, and it is more than probable that the art of their construction as practised under the Roman Empire had its origin in these alluvial regions where the most primitive dwellings consisted of reed huts plastered over with moist clay. And both in Chaldaea and Assyria there is evidence—though it is scanty—that domed roofs were constructed simply by utilizing the adhesive quality of the soil. That the dome became a common form of roofing, and ultimately a characteristic feature in oriental architecture and that of eastern Europe, are familiar facts. The relationship of the Pantheon at Rome to the primitive mud huts of Mesopotamia may seem remote, but it is allowable to suppose that the Romans, in their eastern wars under Trajan, had become familiar with the structure of these domical roofs, and that Hadrian, the most cultured of the Roman emperors, who had himself visited the East (A.D. 130), should have conceived the idea of erecting a magnificent rotunda with a hemispherical dome of concrete. For this admirable cupola is in no sense a constructive development from the radiating arch, but is a single mass composed, like many of the imperial Roman vaults, of brick mixed with pumice stone for the sake of lightness, bound together with cement, and resting on the walls with no lateral thrust.¹

However this may be, the practical ability of the Assyrians as builders is not to be disputed, nor the skill

¹ See Middleton's “Ancient Rome,” p. 339; and for the history of the building Lanciani's “The Ruins and Excavations of Ancient Rome,” pp. 476 *sq.*

with which they adapted to their own purposes the ideas borrowed from others. And it must be admitted that when their kings realized the value of these sculptured mural reliefs, not only as architectural decoration, but also, and perhaps more readily, as graphic records of their achievements and tributes to their own power and majesty, their artists gave evidence of remarkable technical skill in their execution. They not only improved on their models, but showed a continuous advance in technique, until, in the sympathy of their delineation of animal forms, and in the restrained quality of the relief in which they are represented, as shown in the panels from Ashurbanipal's palace, they approach an almost classic excellence.¹

That this Assyrian decorative art had, in turn, an influence on that of Persia (apart from the structural methods which Elam had originally shared with Mesopotamia) seems open to no doubt, but the extraordinary forms which Persian architecture assumed after contact with that both of Egypt and Ionia, combined and transformed under what has aptly been termed "the unbalanced fancy of the East,"² resulted in an exotic style of which traces may be seen in some of the temple-architecture of northern India, but which was without perceptible effect on the later art of Europe.

It may in fact be said that the whole of this western Asiatic tradition had few points of contact with that which produced the pre-eminent art of Greece, but such as it had were not unimportant. It became effective chiefly through the Hellenic colonies of Ionia. It has been shown elsewhere³ how the voluted Ionic capital owed its origin to types which prevailed at an early

¹ See Hall, "N. E.," p. 515.

² Sir R. Blomfield, "The Mistress Art," p. 196.

³ See Puchstein, "Das Ionische Kapitell," and "Hellenic Architecture," chapter x.

period in various parts of Anatolia. It is similarly probable that the earlier spheroidal type of Ionic base, before it was refined by Athenian builders, was derived from those bulb-shaped pedestals which formed the bases of columns in Mesopotamia and Syria.¹ For though the column does not appear to have been used constructively, it formed an ornamental feature of doorways, both in the early buildings of Chaldaea and in the latest Assyrian palaces.

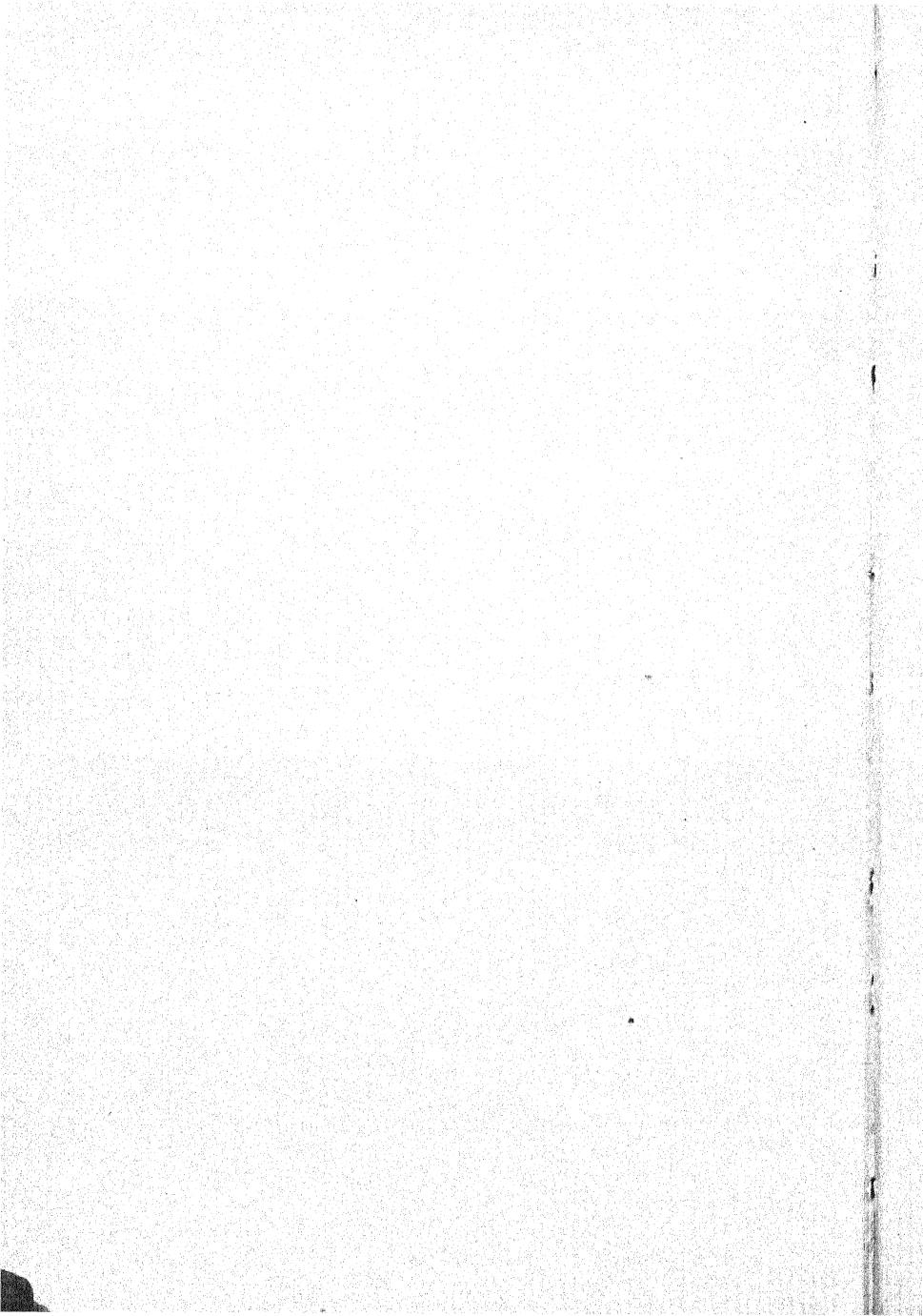
The influence of Ionia on the art of Greece did not end here. The history of sculpture shows that the art which attained such perfection in Athens received its earlier stimulus from Asiatic Hellas, and the same is true of its application to architecture. The frieze of the singular Doric temple at Assos, the carved drums of the earlier Artemisium at Ephesus, repeated more elaborately in the later building, show an instinct and incipient skill in the use of sculpture in relief, which owed nothing to the Doric art of the mother country. It may indeed be said that the converse was the case and that the friezes and pediments of Bassae and Aegina, of Zeus at Olympia, and the Parthenon may be traced to Ionia as their actual source.

This Ionian art pursued an independent course, and may be studied in the remains of the Mausoleum, the Athene-temple of Priene, or the monument of the Nereids. It may be said to have reached its culmination in the colossal frieze which filled the terrace-fronts of the altar of Zeus at Pergamos.

Whence came this skill in decorative sculpture, if not from some inborn quality of the people of the land? It cannot be supposed that the Greek colonists of Ionia were unaffected by the culture of the native population, to which they no doubt contributed some special refinements of their own: and it does not seem unreasonable

¹ See *ante*, p. 153.

to conclude that traces of the ancient art of the Hittites survived in the Anatolian coast-lands and formed a strand in that architectural tradition which held on through imperial Rome to the later ages of European civilization.



CHRONOLOGICAL DATA

B.C.

- 5000-} Early occupation by non-Semitic settlers of Eridu, Ur,
- 3000-} and other towns in Mesopotamia.
- 3000-} Semitic rulers at Kish, Opis, Nippur, etc. Sumerian
- 2800-} *patesis*—Urnina, Eannatum, Entemena at Lagash:
- Lugalzaggisi at Erech.
- 2730-} Sargon I, Naramsin, and other Semitic kings ruling
- 2500-} from Akkad.
- 2450-} Sumerian rulers: Gudea at Lagash; Urengur and Dungi
- 2285-} at Eridu, Ur, and Erech.
- 2280. Dynasty of Isin till c. 2050.
- 2100. Early kings (? Semitic) Ushpia and Kikia at Assur.
- 2050. First Babylonian dynasty (Amorite) established by
- Sumuabu.
- 1944. Hammurabi (d. 1901).
- 1920. Rimsin (Elamite) at Larsam and Ur.
- 1875. Second Babylonian dynasty, of the Sealand (Sumerian).
- 1800. Shamshiadad II, king in Assur.
- 1746. Hittite raid on Babylon.
- Babylonia invaded by Gandash, a Kassite chief.
- Third Babylonian dynasty (Kassite), lasting till 1175.
- 1600. Conquest of the Sealand by the Kassites, and final
- absorption of the Sumerians.
- 1400. Hittite kings at Hatti-town (Boghaz-Keui) in central
- Asia Minor.
- 1380. Hittite empire in Anatolia and north Syria under
- Subbiluliuma.
- Palaces built at Boghaz-Keui, Eyuk, and Malatia. Early
- sculpture at Fraktin, Sinjerli and (?) Mount Sipylus.
- 1340. Mursil, Hittite king.
- 1330. Lower palace or temple at Boghaz-Keui built.
- 1310. Conquest of north Syria by Egypt.
- 1295. Mutallu, Hittite king.
- 1290. Shalmaneser I, Assyrian king.
- 1290. Battle of Kadesh.

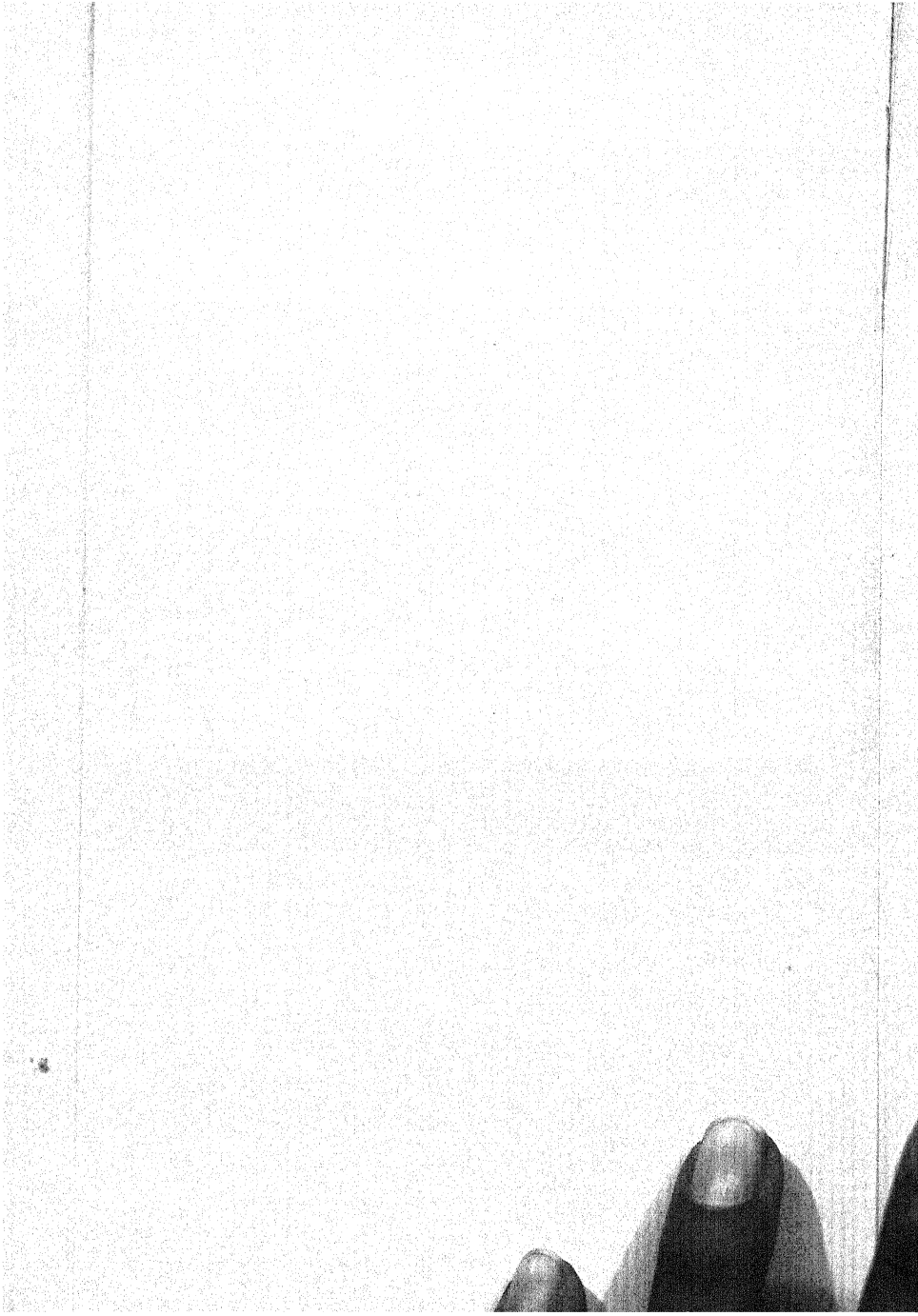
B.C.

- 1271. Treaty between Hatti and Egypt. Sculptures at Iasily Kaya, Giaour Kalesi, and Karabel.
- 1250. Tukulti Ninib I, Assyrian king.
- 1243. Ashurnazirpal I, Assyrian king.
- 1200. Hittite lands in Asia Minor overrun by Muski-Phrygians.
- 1175. Fourth Babylonian dynasty (of Pashe).
- 1140. Nebuchadnezzar I, king of Babylon.
- 1110. Tiglath Pileser I of Assyria.
- 1080. Shamshiadad III.
- 1050. Temporary decline of Assyria, and Hittite revival.
- 1000. Hittite building at Eyuk, Malatia, Sinjerli, and Sakje-Geuzi. Lower palace at Boghaz-Keui rebuilt.
- 975. Solomon, king of Israel.
- 940. Tiglath Pileser III of Assyria.
- 920. Ashurdan II.
- 911. Adadnirari II.
- 890. Tukulti Ninib II.
- 884. Ashurnazirpal III. Assyrian capital removed from Assur to Kalah (Nimrüd). Conquest of Babylon.
- 860. Shalmaneser II. Building at Nineveh and Kalah; fortifications at Assur. Invasion of Cilicia, and Hittite towns reduced to vassalage.
- 825. Shamshiadad IV of Assyria.
- 811. Adadnirari III of Assyria.
- 783. Shalmaneser III. Conflict with kings of Urartu.
- 773. Ashurdan III.
- 763. Civil war in Assyria. Babylonian independence under Nabonassar (747).
- 745. Tiglath Pileser IV (Pul). Babylon reconquered and Assyrian Empire restored and extended.
- 727. Shalmaneser IV. Conquest of Samaria followed by captivity of Israel.
- 722. Sargon, founder of the last Assyrian dynasty. Egyptians defeated at Raphia. Long contest with Vannic kings. Hittite towns conquered, and fall of Karchemish (718). Building at Babylon, and the new town Dūr Sharrukin (Khorsabad).
- 705. Sennacherib. Siege of Jerusalem. Destruction of Babylon (689). Enlargement of Nineveh and construction of palaces.

B.C.

- 682. Esarhaddon. Babylon rebuilt. Invasion of Egypt. Palace at Nineveh and one unfinished at Kalah.
- 669. Ashurbanipal. Two invasions of Egypt and sack of Thebes (661). War with Elam. Independence of Egypt under Psamtek (651). Revolt and death of the vassal king of Babylon (648). Capture of Susa and destruction of Elam (647). Triumph at Nineveh (642). The palace and library.
- 625. Nabopolassar, founder of the last Babylonian dynasty. New buildings on the Kasr.
- 612. Siege and destruction of Nineveh by Kyaxares the Mede, assisted by Babylonians and Scythians.
- 604. Nebuchadnezzar II. Reconstruction of Babylon: the outer walls on the east and new palaces on Babil and the Kasr. Many temples and towers rebuilt.
- 562. Evil-Merodach, Neriglissar (560), and Labashi-Merodach (556), successive kings of Babylon.
- 555. Narbonidus, the last king, called to the throne by the priests of Babylon.
- 546. Sardis taken by Cyrus II.
- 539. Babylon besieged and taken by Cyrus and incorporated in the Persian empire. Pasargadae made a royal city. Cyrus' conquests in Anatolia.
- 529. Kambyzes II. Invasion of Egypt.
- 521. Darius, son of Hystaspes, king. Foundation of Persepolis.
- 485. Xerxes I. Further building at Persepolis.
- 480. Battle of Salamis.
- 470. Battle of Plataea.
- 465. Artaxerxes I. Xerxes II and Darius II (425). Artaxerxes II (405). Artaxerxes III (359). Darius III (336).
- 331. Conquest of Persia by Alexander the Great and partial destruction of Persepolis.

N.B.—The dates in the early part of the above list must be taken as only approximate. They follow closely Mr. Hall's chronology ("N. E.," p. 211) based upon the late L. W. King's researches. But in some cases they differ widely from E. Meyer's dates which were adopted to accord with certain astronomical calculations deduced from records of the motion of the planet Venus during the first Babylonian dynasty. The result is to place some of the dates 165 years earlier (see Meyer, § 328). The Hittite dates follow Prof. Garstang's suggestions in "The Land of the Hittites."



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